

# 2023 Primary Packaging Annual Progress Report



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# INTRODUCTION

Primary packaging is the packaging that immediately surrounds our beverages. It includes plastic bottles, glass bottles, aluminium cans, aseptic fibre packs (e.g. juice boxes) and post mix bag-in-box (BIB) and pouches, as well as caps and ancillary items including cups and lids.

We use a substantial amount of primary packaging to sell our products. Some of this packaging can have negative impacts on our environment. For example, packaging that is not recyclable can contribute to overstressed landfills and environmental pollution. Leakage of plastic packaging into oceans, waterways and land can have adverse health impacts on ecosystems and people. Primary packaging is also a major contributor to our Scope 3 greenhouse gas emissions.

We are committed to making more sustainable packaging choices, engaging policymakers on related regulation, partnering with public and private organisations and investing in recycling systems.

## We have three main goals to improve our performance:

- By 2025, 100% of our primary packaging will be technically recyclable<sup>1</sup>
- By 2030, our primary packaging will be made up of 50% recycled material
- We will support the collection and recycling of one bottle or can for every one we sell

### Note:

<sup>1</sup> Packaging is only considered “recyclable” when there exists a system for recycling that achieves at least a 30% post-consumer recycling rate either globally (i.e., in multiple regions, collectively representing at least 400 million inhabitants), or in a specific market (local recyclability), where applicable. Any and all local requirements above and beyond this definition must also be met to claim local recyclability.

Transparency on this critical topic drives our progress and ensures we remain accountable. In this report, we provide detailed information on the amount of primary packaging we use, whether it can be recycled and whether it is actually being recycled. Because the ability to recycle our products largely depends on the systems available to consumers in the markets in which we operate, we also describe how the collection and recovery systems work in our markets and whether waste is exported for recycling.

**The scope of our businesses changed significantly in 2023.** We completed the acquisition of the TCCC franchise businesses in Cambodia and Vietnam in November 2022 and January 2023, respectively. In January 2023, we also acquired six subsidiaries of Coca-Cola Bottlers Manufacturing Holdings Limited (CCBMH), which produce still beverages in the Chinese Mainland. Overall the new acquisitions resulted in a 24% increase in the weight of primary packaging materials we used in 2023, primarily PET and aluminium.

Disposal of 100% equity interest in our U.S. franchise business (Swire Coca-Cola, USA, or SCCU) was completed on 7 September 2023, however, we continue to provide management and administrative support services to SCCU. In this report, packaging data for the U.S. market covers the full year. It has not been apportioned to reflect the date of sale of SCCU.

For more information about our overall approach to sustainable development, please see our [Sustainable Development Report 2023](#).

# 2023 Details on Primary Packaging

## Chinese Mainland

	Is it technically recyclable?	Percentage recycled content	Collection & recovery rates	Is there domestic recycling infrastructure?	Is it exported for recycling?
Returnable Glass Bottle (RGB)	Yes	40%	95%	Yes	No
Non-returnable Glass Bottle (NGB)	Yes	30%	30% <sup>[1]</sup>	Partial	No
PET (Water)	Yes	0%	95% <sup>[2]</sup>	Yes	No
PET (Rest)	Yes	0%	95% <sup>[2]</sup>	Yes	No
Carboy (PC)	Yes	0%	95%	Yes	No
Aseptic fibre pack	Partial	0%	15% <sup>[1]</sup>	Partial	No
Tin	Yes	0%	0%	No	No
Aluminium Can	Yes	N/A	99% <sup>[3]</sup>	Yes	No
Post mix BIB	No	0%	0%	No	No
Pouch	Not sold in Chinese Mainland				

### Note:

- The loss in collection and recovery of RGB and Carboy is due to breakage, unacceptable scuffing or loss by customers.
- Percentage recycled content for RGB is the figure for cullet in our system, whereas for NGB is the industry average in the Chinese Mainland.
- NGBs are provided to a glass recycler for crushing. After crushing, the cullet is used in one of three ways:
  - As a casting flux for smelting cast steel and copper alloys, covering the molten metal to prevent oxidation;
  - Pre-processed, melted and recycled to produce glass containers, glass fibres and other glass materials; or
  - As a raw material to make glass products, as adding cullet in appropriate amounts helps glass to melt at a lower temperature.
- Cullet is popular because the cost of washing and sterilising RGBs is currently similar to producing new bottles.
- Currently, food-grade PET packaging in the Chinese Mainland cannot contain recycled material.
- Carboys in the Chinese Mainland are made from polycarbonate plastic (PC) which is classified as type 7 plastic.
- We do not produce or sell products packaged in pouches in the Chinese Mainland.

[1] Collection and recovery rates confirmed by China Resources Recycling Association (CRRRA).

[2] Collection and recovery rates taken from China Beverages Industry Association (CBIA).

[3] Collection and recovery rates taken from report published by China National Research Institute of Food & Fermentation Industries Co., Ltd. (NFI).

## Hong Kong SAR

	Is it technically recyclable?	Percentage recycled content	Collection & recovery rates	Is there domestic recycling infrastructure?	Is it exported for recycling?
Returnable Glass Bottle (RGB)	Yes	60%	94% <sup>[3]</sup>	Partial	Yes
Non-returnable Glass Bottle (NGB)	Not sold in the Hong Kong SAR				
PET (Water)	Yes	96% <sup>[1]</sup>	12% <sup>[4]</sup>	Yes	No
PET (Rest)	Yes	10%		Yes	No
Carboy (PC)	Yes	0%	95.6% <sup>[5]</sup>	Yes	No
Aseptic fibre pack	Partial	0%	N/A <sup>[6]</sup>	Partial	No
Tin	Yes	0%	60% <sup>[7]</sup>	No	Yes
Aluminium Can	Yes	12% <sup>[2]</sup>		No	Yes
Post mix BIB	No	0%	N/A <sup>[8]</sup>	No	N/A
Pouch	Yes	0%	12%	No	No

Material changes versus 2022

### Note:

- The loss in collection and recovery of RGB and Carboy is due to breakage, unacceptable scuffing or loss by customers.
  - Following the implementation of Operation National Sword on January 1, 2018, Hong Kong can no longer export baled PET to the Chinese Mainland.
  - All aseptic fibre packs are Forest Stewardship Council (FSC)-certified.
- [1] PET water bottles are made from 100% rPET, except for our 4.8L and 5L bottles, which do not contain recycled content.
- [2] rAl is used in our 300ml base can only.
- [3] Actual RGB reuse data of our bottling plant in the Hong Kong SAR.
- [4] With reference to the 2022 Monitoring of Solid Waste in Hong Kong, the recovery rate for plastic bottles has been computed using the quantity of plastics being recycled divided by the quantity of waste plastics sent to landfill or recycled.
- [5] The collection rate equals the recovered rate for Carboy (PC). Used Carboy (PC) that are no longer suitable for refilling are sent to Kingway Development HK Limited through our contract cleaner.
- [6] MilMill is a recycler for aseptic fibre packs, Although MilMill has been actively increasing the number of recycling stations to make it more convenient for the public in recent years, due to their stipulations around collection (e.g., the packs must be cut open, washed and dried), very few post-consumer aseptic fibre packs are actually recycled in the Hong Kong SAR.
- [7] With reference to the 2022 Monitoring of Solid Waste in Hong Kong, the Tin and Aluminium recovery rate has been computed using the quantity of non-ferrous metals recycled divided by the quantity of non-ferrous sent to landfill or recycled.
- [8] No available data.

## Taiwan Region

	Is it technically recyclable?	Percentage recycled content	Collection & recovery rates	Is there domestic recycling infrastructure?	Is it exported for recycling?
Returnable Glass Bottle (RGB)	Yes	50% <sup>[1]</sup>	96.9% <sup>[5]</sup>	Yes	No
Non-returnable Glass Bottle (NGB)	Not sold in the Taiwan Region				
PET (Water)	Yes	100% <sup>[2]</sup>	93%	Yes	No
PET (Rest)	Yes	0%	93%	Yes	No
Carboy (PC)	Not sold in the Taiwan Region				
Aseptic fibre pack	Partial	0%	30% <sup>[6]</sup>	Yes	No
Tin	Not sold in the Taiwan Region				
Aluminium Can	Yes	10% <sup>[3]</sup>	84%	Yes	No
Post mix BIB	Partial <sup>[4]</sup>	0%	83% <sup>[7]</sup>	Yes	No
Pouch	Not sold in the Taiwan Region				

Material changes versus 2022

### Note:

- All collection and recovery rates are calculated based on 2023 January to October data from the Taiwan Ministry of Environment (MOENV) using the formula “recycling volume/generation volume”.
  - The loss in collection and recovery in RGB is due to breakage, unacceptable scuffing or loss by customers.
  - We do not produce or sell products packaged in pouches in the Taiwan Region.
- [1] From 2022, the recycled content of RGB has increased from 25% to 50% as the RGB is purchased from another supplier (TAIWANGLASS).
- [2] In May 2022, Taiwan announced that rPET was approved for use in food containers if the material passed a “safety assessment review by the competent authority.” All Bonaqua products have now switched to 100% rPET bottles (excluding cap and label) in 2023.
- [3] 10% rAl was applied in all aluminium can products in 2023.
- [4] 10L juice aluminium foil BIB bags have changed to recyclable EVOH bags.
- [5] Actual RGB reuse data of our bottling plant in the Taiwan Region.
- [6] The significant change is due to an updated source of data. This resulted in a change from 69% calculated using 2021 data from the Taiwan Environmental Protection Administration (EPA) to 30% calculated using 2023 data from the MOENV.
- [7] The Post mix BIB collection and recovery rate is based on the “waste container recovery rate” from the MOENV.

## Vietnam

	Is it technically recyclable?	Percentage recycled content	Collection & recovery rates	Is there domestic recycling infrastructure?	Is it exported for recycling?
Returnable Glass Bottle (RGB)	Yes	0%	140% <sup>[2]</sup>	Yes	No data <sup>[4]</sup>
Non-returnable Glass Bottle (NGB)	Not sold in Vietnam				
PET (Water)	Yes	0%	No data <sup>[3]</sup>	Yes	No data <sup>[4]</sup>
PET (Rest)	Yes	12% <sup>[1]</sup>		Yes	
Carboy	Not sold in Vietnam				
Aseptic fibre pack	Not sold in Vietnam				
Tin	Not sold in Vietnam				
Aluminium Can	Yes	0%	0%	Yes	No data <sup>[4]</sup>
Post mix BIB	Yes	0%	0%	Yes	
Pouch	Not sold in Vietnam				

**Note:**

[1] 100% rPET was applied in Coke 300ml in 2023.

[2] This is the actual weight of material collected. The number exceeds 100% due to bottles sold in 2022 that were returned in 2023.

[3] The official national collection rate for Vietnam is not currently available.

[4] No official information is available currently.

## Cambodia

	Is it technically recyclable?	Percentage recycled content	Collection & recovery rates	Is there domestic recycling infrastructure?	Is it exported for recycling?
Returnable Glass Bottle (RGB)	Not sold in Cambodia				
Non-returnable Glass Bottle (NGB)	Not sold in Cambodia				
PET (Water)	Yes	3% <sup>[1]</sup>	No data <sup>[2]</sup>	Yes	No
PET (Rest)	Yes	0%		Yes	No
Carboy	Not sold in Cambodia				
Aseptic fibre pack	Not sold in Cambodia				
Tin	Not sold in Cambodia				
Aluminium Can	Yes	0%	0%	Yes	No data <sup>[3]</sup>
Post mix BIB	Yes	0%	0%	No	
Pouch	Not sold in Cambodia				

### Note:

- EPR legislation is being drafted by the Ministry of Environment, with support from the United Nations Development Programme (UNDP) Cambodia and the German Corporation for International Cooperation (GIZ). The EPR is expected to start as a voluntary obligation and later become compulsory. UNDP is seeking support from TCCC in sharing an rPET food-grade requirement so that it can be shared with recyclers to upgrade their standards. The UNDP also seeks to understand whether we are interested in investing in bottling water in RGB in this market, as they aim to motivate hotels and restaurants to use RGB.
  - For the management of municipal solid waste (MSW), the municipality employs a bidding process to engage private local waste collectors, authorising them to collect waste within their designated territories ("Sub-Degree on Management of Garbage and Solid Waste of Downtowns"). However, the formal collection system is very limited and only available in urban areas. For rural areas, burning and dumping in the soil is their only option.
  - Informal waste collectors do exist in rural areas. They often purchase aluminium cans, plastic bottles or glass bottles from rural households.
- [1] PET collection volume is provided by the contracted recyclers. Used PET bottles are also transformed into fabric flakes as there is no rPET food-grade recycler, limiting upcycling in the country due to available capabilities and technologies.
- [2] No official data information is available.
- [3] No official information is available currently.

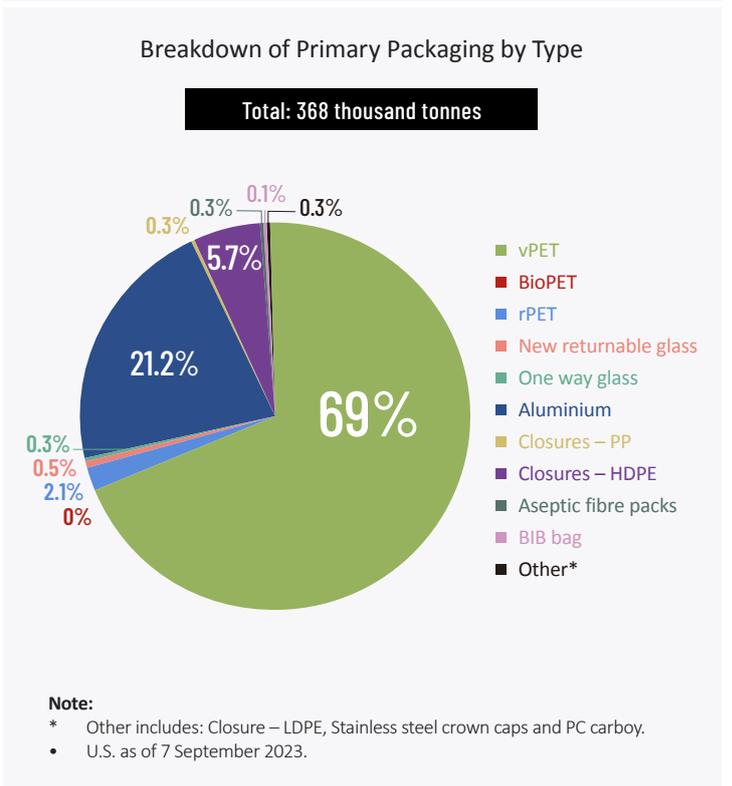
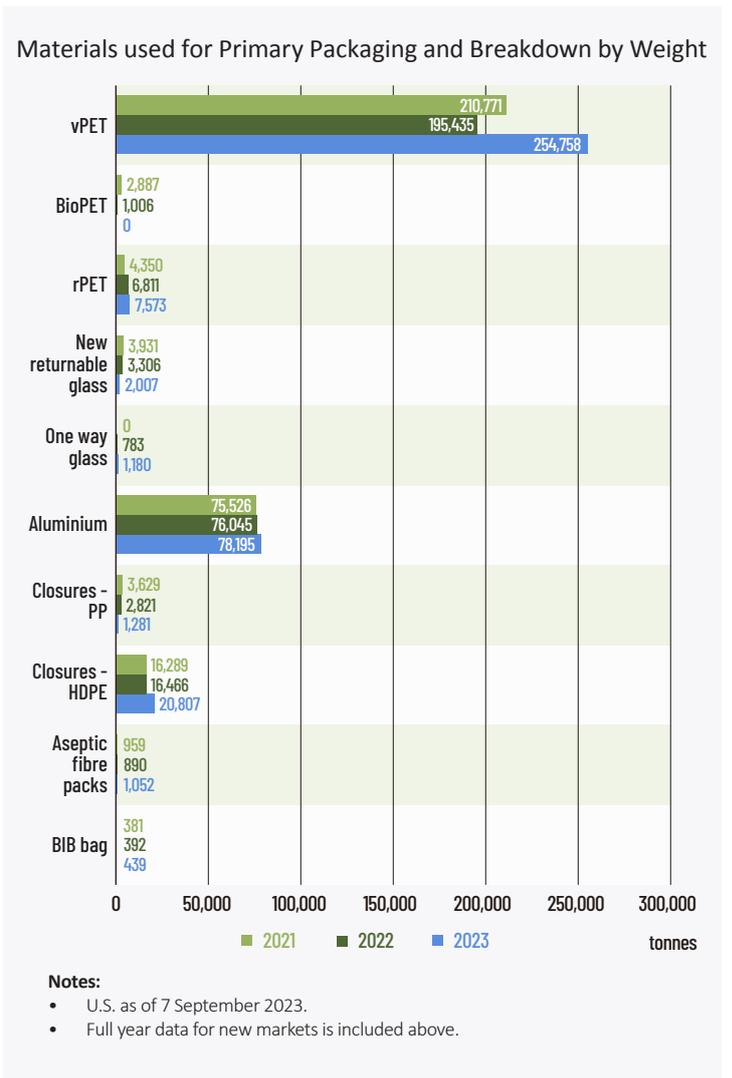
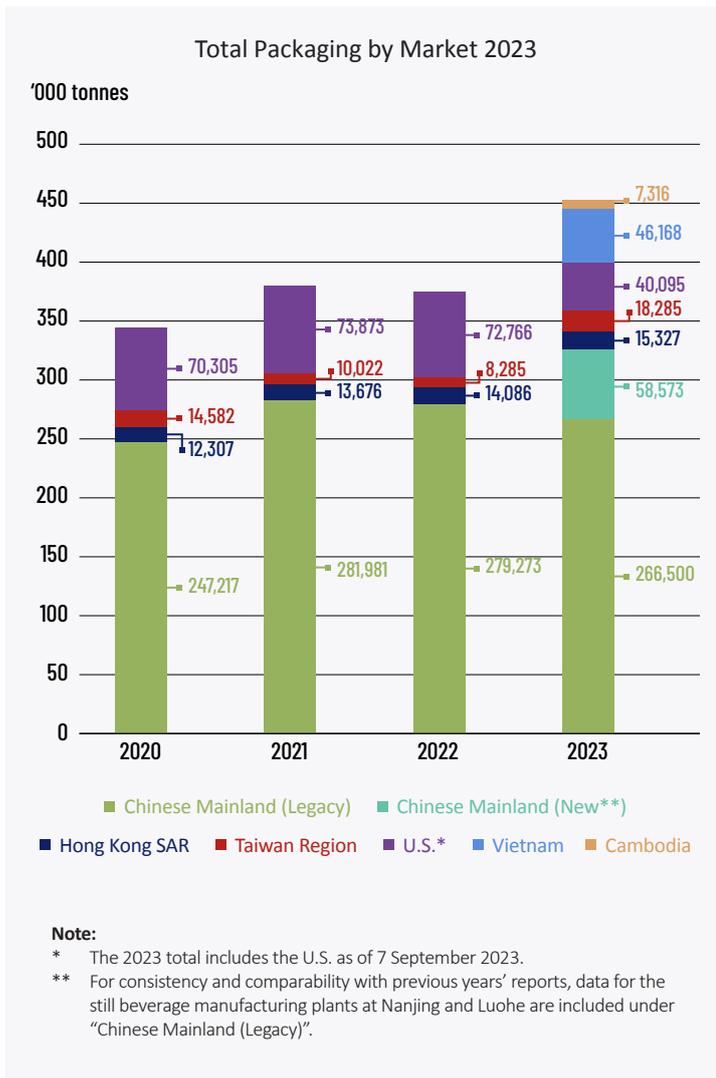
## U.S.

	Is it technically recyclable?	Percent of recycled content	Collection & recovery rates	Is there domestic recycling infrastructure?	Is it exported for recycling?
Returnable Glass Bottle (RGB)	Not sold in the U.S.				
Non-returnable Glass Bottle (NGB)	Yes	26%	40%	Varies by state	Unknown
PET (Water)	Yes	24% <sup>[1]</sup>	30%	Varies by state	No
PET (Rest)	Yes	25.6% <sup>[2]</sup>	30%	Varies by state	No
Carboy	Not sold in the U.S.				
Aseptic fibre pack	Not sold in the U.S.				
Tin	Not sold in the U.S.				
Aluminium Can	Yes	72% <sup>[3]</sup>	45%	Varies by state	No
Post mix BIB	No	0%	No data	No	No
Pouch	Not sold in the U.S.				

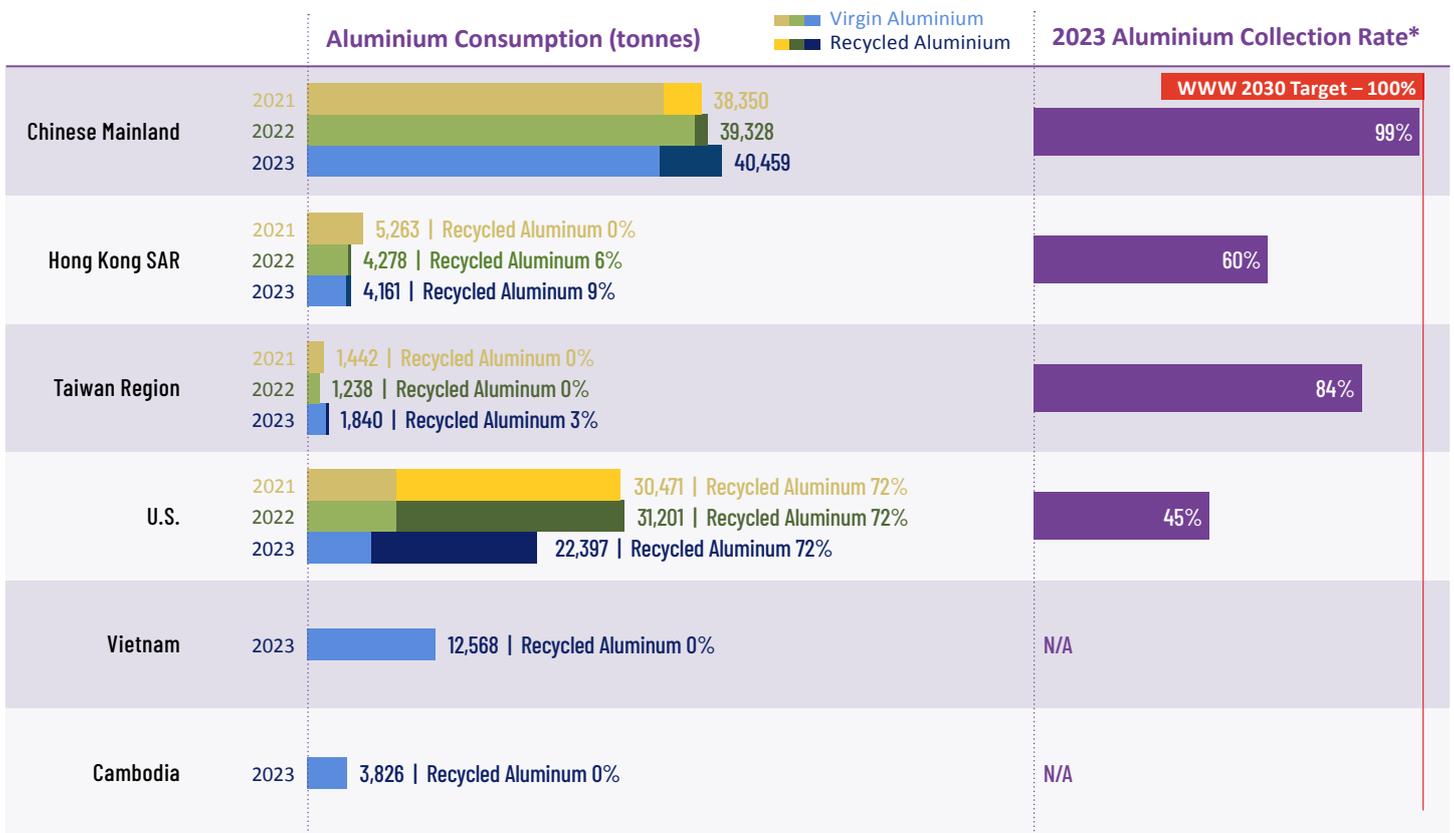
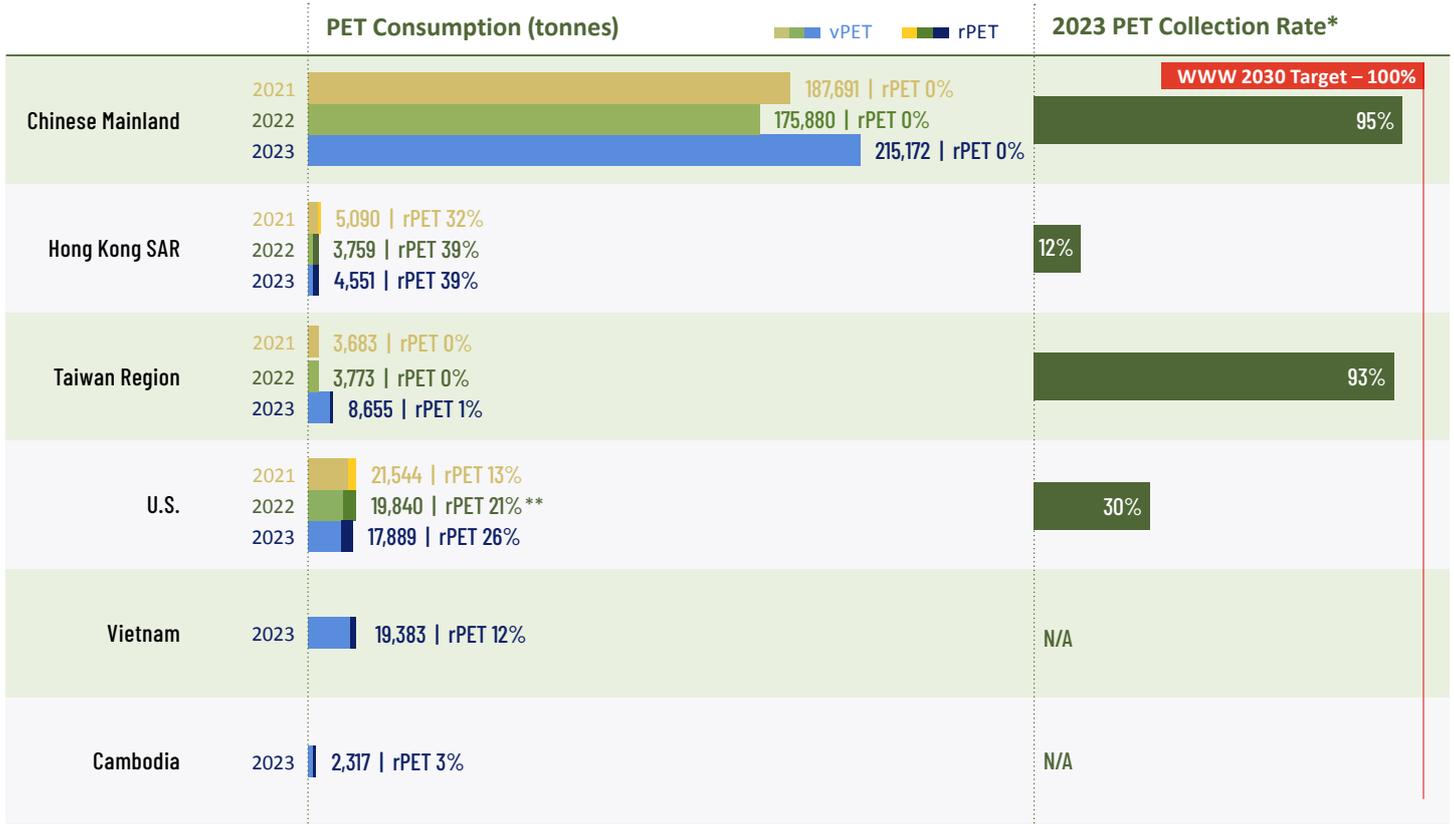
**Note:**

- Coca-Cola Beverage Sales and Service (CCBSS) is the source for recycled content.
  - [Western Container Corporation \(WCC\)](#) is the source for recycled content of PET.
  - The U.S. national average recovery rate from the American Beverage Association (ABA) is the source for the recovery percentage.
  - We no longer manufacture Post mix BIB, but we do distribute and sell it. The cardboard box around the bag may be recycled, however, there is no data to verify the recycled percentage.
- [1] All Dasani water produced by Swire Coca-Cola is packaged in 100% rPET. In 2023, Niagara case pack water was manufactured by an external party with zero rPET used.
- [2] In September 2023, Coca-Cola trademarked brands were launched in 100% rPET bottles in the Pacific Northwest.
- [3] Information taken from CCBSS.

## Packaging by Market, Type and Weight



## Material Consumption by Market



**Notes:**  
 \* SCC uses national/government collection rates from publicly available sources, except in Vietnam and Cambodia where official information is not available.  
 \*\* In 2023, we updated our methodology for calculating % rPET in the U.S. to align with our other markets. The rPET percentages for 2022 and 2021 have been restated.  
 • U.S. full year data.  
 • Vietnam and Cambodia data is presented for 2023 only.  
 • Overall recycled content for PET in 2023, not separating water bottles and other bottles.

# Details on the Specifics of How the Collection and Recycling Systems Work by Market

## Chinese Mainland

In the Chinese Mainland, there is currently EPR legislation for packaging materials, such as aseptic fibre packaging, but not for plastic, aluminium cans and glass bottles. Driven by the intrinsic value of recyclable materials, informal and formal sectors pull waste that is recyclable from the MSW stream.

In November 2020, the National Development and Reform Commission (NDRC) and Ministry of Housing and Urban-Rural Development (MOHURD) of the People's Republic of China issued instructions regarding a domestic garbage separation scheme. The document states that the first batch of 46 pilot cities including province-level municipalities, provincial capitals and cities specifically designated in the state plan, will roll out compulsory domestic garbage separation schemes. The document then states that in a further five years, it expects domestic garbage separation, collection, transportation, and treatment systems at other prefectural-level cities to be established.

Referencing the 14th Five-Year Plan, one chapter is dedicated to "Promote Green development, stimulate harmonisation of human being and nature" (推動綠色發展，促進人與自然和諧共生). This chapter addresses "Promoting garbage sorting and separation measures, embrace overall reduction of waste and to develop recycling infrastructure" (推行垃圾分類和減量化、資源化。加速建構廢舊物資循環使用體系).

On 19 January 2023, the Chinese Mainland announced its plan to cut plastic use by 2025. The National Development and Reform Commission (NDRC) and the Ministry of Ecology and Environment issued a document stating that the country will gradually ban or restrict the production, sale and use of certain plastics while promoting degradable and recycling-friendly alternatives. The aim is to effectively

control plastic pollution, substantially reduce plastic waste in landfills of key cities, establish a complete plastics management system, and make progress in the development of alternative products. As the country continues to implement measures to reduce plastic use and enhance recycling efforts, it is expected that further advancements will be made in the collection and recycling of primary packaging materials.

### The current landscape for the recycling of primary packaging is as follows:

- Recycling infrastructure for PET (mechanical recycling where rPET flake and or pellet is the end product) is common and often done on a large scale (e.g., 100,000 tonnes per annum plants) with modern equipment. The majority of rPET flake or pellet tends to go to in-country garment manufacturers as polyester feedstock.
- Glass is generally crushed into cullet and used in-country in further glass manufacturing and/or as a casting flux in some types of metal production.
- Used beverage cans (UBC), made from aluminium, are typically baled, crushed, and transported to in-country aluminium remelting facilities. These facilities recycle the UBC into various new products, for example non-food-grade components utilised in automotive and construction sectors in-country.
- HDPE, like PET, fits into a well-established in-country mechanical recycling network. The recycled HDPE (rHDPE) pellets are then reworked into a number of new non-food grade HDPE manufactured products.
- Paper and cardboard go to well-established paper recyclers.

## Hong Kong SAR

The MSW in the Hong Kong SAR largely goes to two landfills via a network of transfer stations, which further compact the MSW leading to the more efficient haulage of waste. The Hong Kong SAR has no wet or dry Material Recovery Facilities (MRFs), meaning that recyclables are pulled from the waste stream due to their intrinsic value and/or because of some of the programs mentioned below. Due to the Hong Kong SAR's size and current waste infrastructure (which is focused on landfilling), little professional recycling capability exists. As such, collection and recovery rates for primary packaging are low, and like all markets getting verifiable data in a timely manner on collection, recovery and recycling rates is challenging.

In 2013, the Environmental Protection Department (EPD) published a [Blueprint on the Government's waste strategy for 2013 to 2022](#). The blueprint was updated in early 2021 under the title of "[Waste Blueprint for Hong Kong 2035](#)". The document sets out vision of "Waste Reduction • Resources Circulation • Zero Landfill", which describes the strategies, goals and measures to tackle the challenge of waste management up to 2035. More recently, in 2021 the EPD released Hong Kong's [Climate Action Plan \(2050\)](#), setting out various strategies and actions to achieve carbon neutrality before 2050, including measures for waste reduction.

[The Producer Responsibility Scheme](#) (PRS) is a key policy tool in Hong Kong SAR's waste management strategy. Enshrining the principle of "polluter pays" and the element of "eco-responsibility", the PRS concept requires relevant stakeholders including manufacturers, importers, wholesalers, retailers and consumers to share the responsibility for the collection, recycling, treatment and disposal of end-of-life products with a view to avoiding and reducing the environmental impacts caused by such products at the post-consumer stage.

The Hong Kong SAR has implemented several waste management initiatives, including a PRS for plastic bags and electronic goods (fridges, TVs, washing machines, etc.). In November 2022, the Legislative Council (LegCo) approved the Product Eco-responsibility (Regulated Articles) Regulation ([Cap. 603C](#)), which facilitated implementation of a PRS for glass beverage containers ([GPRS](#)) in May 2023. Beverage manufacturers and distributors are required to pay a container recycling levy and provide annual audit reports tracking their use of glass bottles. Beverage manufacturers that have established systems to recover and reuse their own glass bottles and meet certain criteria may apply for exemption from some of the obligations, including payment of a container recycling levy. A bill for implementation of a PRS for plastic beverage containers ([PPRS](#)) using a "market-based model" is expected to be submitted to LegCo in 2024. Beverage cartons will also be included in the PRS, however, no details are available yet. The Government extended its reverse vending machine (RVM) pilot programme in 2023.

The EPD runs the Three Colour Bin system, with about 1,100 roadside bins located throughout the Hong Kong SAR to collect paper, metals and plastic. Volumes of post-consumer primary packaging generated from these programs is low, with high contamination, and a review in 2023 found they collect less than 0.1% of the total amount of recyclables in the Hong Kong SAR (about 39 tonnes per month on average). The EPD is expanding its community recycling network, GREEN@COMMUNITY, which includes over 180 public collection points that collect a wider range of recyclables, including beverage cartons.

Nonetheless, a professional PET and HDPE recycling plant ([New Life Plastics Limited](#)) has commenced operations in Tuen Mun at the EcoPark. It can process 35,000 tonnes of PET and HDPE per year. Swire Coca-Cola holds a 56.67% equity share in this business.

## Taiwan Region

In the Taiwan Region, the management of MSW falls under an umbrella of legislation focused on incentives, charges and fines, which result in influencing behaviour to deliver high collection, recovery and recycling rates for soft drink primary packaging – and many other recyclables.

Glass, paper, cardboard, metal cans and plastics are collected in a single waste stream. Individuals bring their recyclable items to public recycling trucks or to the recycling collectors (free of charge), while general waste requires individuals to pay under the Pay As You Throw (PAYT) scheme.

In addition, in April 2022 the Government announced the “Restriction on the Use of Disposable Beverage Cups and Implementation Methods.” Starting from 1 July 2022, consumers who bring non-disposable drink cups for purchase should receive a NT\$5 price difference discount. It is also mandated that, starting from 2023, chain convenience stores and chain fast food stores should provide a certain percentage of outlets to offer free reusable cup borrowing services, with the percentage increasing annually.

The EPR scheme is led by the Government. Producers and importers putting packaging into the market pay contributions (every 2 months) directly to the Government-led Central Recycling Fund, which is managed by the MOENV. This Fund then supports collection and recycling infrastructure, which depends upon this funding and the proceeds from selling processed recyclables. The recycling infrastructure across the Taiwan Region is owned by a number of different recycling companies.

Industry is involved in the determination of the contribution (recycling levy) through their participation in the multi-stakeholder Fee Rate Review Committee.

As an example, the PAYT scheme in Taipei, including New Taipei City (since 2000), requires residents to purchase designated garbage bags (3L = NT\$ 21 for 20 bags) for waste disposal, while incentivising the source separation of recyclable materials, as these are exempt from this obligation.

The current Government subsidies to recycling plants for different materials are shown as below:

Source:  
Laws & Regulations Retrieving System of the MOENV  
<https://oaout.moenv.gov.tw/laW/NewsContent.aspx?id=43135>

Kg	Government subsidy (NT\$)
Al	1
Glass	2.1
Tetra/Combi	5.91
PET	4.5

Below are the recycling amounts paid to the MOENV by different material:

### Recycling

PET bottles	NT\$ 8.50/kg
Tin cans	NT\$ 1.64/kg
Aluminium cans	NT\$ 1.00/kg
Glass bottles	NT\$ 2.00/kg
Aseptic paper packs	NT\$ 6.42/kg

### Other containers

Formed polystyrene (PS)	NT\$ 69.83/kg
PS	NT\$ 11.64/kg
Polyvinyl chloride (PVC)	NT\$ 87.00/kg
Polypropylene (PP)/Polyethylene (PE)	NT\$ 7.00/kg
Paper/Fibers	NT\$ 5.40/kg

## Vietnam

In Vietnam, the implementation of EPR regulations is driving changes in the recycling and collection of beverage packaging. These regulations, set to be implemented from January 2024, require producers to take full responsibility for their products' lifecycles, including the management of packaging waste.

The Law on Environmental Protection, effective from 1 January 2022, establishes Vietnam as a trailblazer in the Association of Southeast Asian Nations (ASEAN) for adopting EPR regulations. The aim is to reduce pollution, foster sustainable practices, and establish a circular economy model.

The Ministry of Natural Resources and Environment (MONRE) is the competent authority responsible for implementing EPR in Vietnam. MONRE issues regulations, determines recycling rates for different product and packaging types, and manages the Vietnam Environment Protection Fund (VEP Fund).

Producers have two main obligations under the EPR regulations: recycling responsibility and treatment responsibility. They can fulfil their recycling responsibility by either self-organising recycling or making a financial contribution to the VEP Fund. Producers must register their recycling plans with MONRE and report their yearly recycling results. The specific recycling responsibilities and timelines vary depending on the product and packaging categories. MONRE and other authorities actively audit and inspect producers' compliance efforts.

To navigate the implementation of EPR regulations, producers should be aware of their specific obligations, choose the most suitable recycling approach, complete necessary registrations and reports, and ensure timely declaration and payment of financial contributions. It's important to note that recycling rates and contribution amounts may be revised every three to five years, depending on the product and packaging type.

## Cambodia

According to Ministry of Environment (MoE), Cambodia is grappling with a surge in plastic production and consumption as the country experiences rapid economic growth and population expansion. This has led to significant challenges in the recycling and collection of beverage packaging. In Phnom Penh, the capital city, the volume of total municipal waste has more than tripled from 343,657 metric tons in 2007 to 1,288,223 metric tons in 2022, with plastic accounting for approximately 20% of the waste.

The MoE, with support from the UNDP and GIZ, is in the process of drafting EPR regulations. Initially, the EPR scheme is expected to be voluntary and later become compulsory.

It is important to note that the formal waste collection system in Cambodia is limited in scope, primarily serving urban areas. In rural regions, waste management predominantly relies on burning or indiscriminate disposal in the soil. Informal waste collectors play a significant role, purchasing various types of waste materials such as aluminium cans, bottles, and glass bottles from rural households.

The market for aluminium cans in Cambodia is relatively big, with minimal instances of improper disposal. There is also a growing demand for used PET bottles, which are being bought for recycling into rPET, flakes, and fabric. Some recyclers are processing PET bottles into flakes and fabric and then exporting to neighbouring countries, according to statements from our local collection partners.

## U.S.

Currently, the U.S. does not have standardised EPR legislation covering the country. Each State tends to manage its MSW in a different way. Generally, the country is landfill-focused with poor collection systems feeding an assortment of MRFs which vary in quality. Although the EPA in the U.S. calculates the national recycling rate for different materials (including packaging) on an annual basis, the market lacks a reliable ability to compare the recycling rates of a common set of containers and packaging materials (CCPM) within or across all states due to conflicting measurement methodologies<sup>1</sup>.

The market for recyclables tends to be driven by the pricing of paper and cardboard, which dominates the volumes of recyclables being managed. In the past three years, the prices for recyclables have had a turbulent time due to Operation National Sword by the Chinese Mainland and now the [Basel Convention](#), so the export-driven market has fundamentally changed.

Only one State in which we operate (Oregon) has a Deposit Return System (DRS) for USD 0.10 per container. The [Oregon Beverage Recycling Cooperative](#) (ORBC) operates this DRS and has branded it as BottleDrop®. With this system, the redemption rate of Oregon is regularly between 80%-90%, whereas the national beverage container recycling rate is 35%. This program has successfully maintained the [high recycling rates for beverage containers](#).

In Washington State, the collection of recyclables, including post-consumer primary packaging of soft drinks, is primarily carried out through curbside collection. However, it is worth noting that trash haulers dominate the collection

process, and their success in collecting significant volumes of quality recyclables varies. While urban areas tend to have some success, more rural areas of the State face limited success in recycling efforts. Furthermore, in Washington, Oregon, and the small territory in which we operate in California, we adhere to Minimum Recycled Content policies. These policies vary between states and dictate the minimum amount of recycled material that must be included in our packaging.

Recycling infrastructure for PET (mechanical recycling where rPET flake and or pellet is the end product) is not well established across the country (and the same applies to HDPE), but there does seem to be greater impetuous today for plants getting funding for operations. This may be due to greater awareness of the issue, the increasing demand for rPET, and the need for fast-moving consumer goods companies to demonstrate their transition from linear to circular models of operation. Glass, when it is separated, is recycled by glass foundries. UBC tends to be crushed, baled and sent to the aluminium smelters (i.e., Novellis in Kentucky), where recycled aluminium tends to be reworked back into sheet for the re-manufacturing of soft drink and beer aluminium cans. Paper and cardboard are largely exported, with some volume going to well-established State-side paper recyclers.

Colorado passed an EPR bill in 2022. Details of the bill are still being developed. Looking forward, certain States – for example, Washington – are considering legislation around EPR and DRS, but the speed at which these will progress is unknown.

### Note:

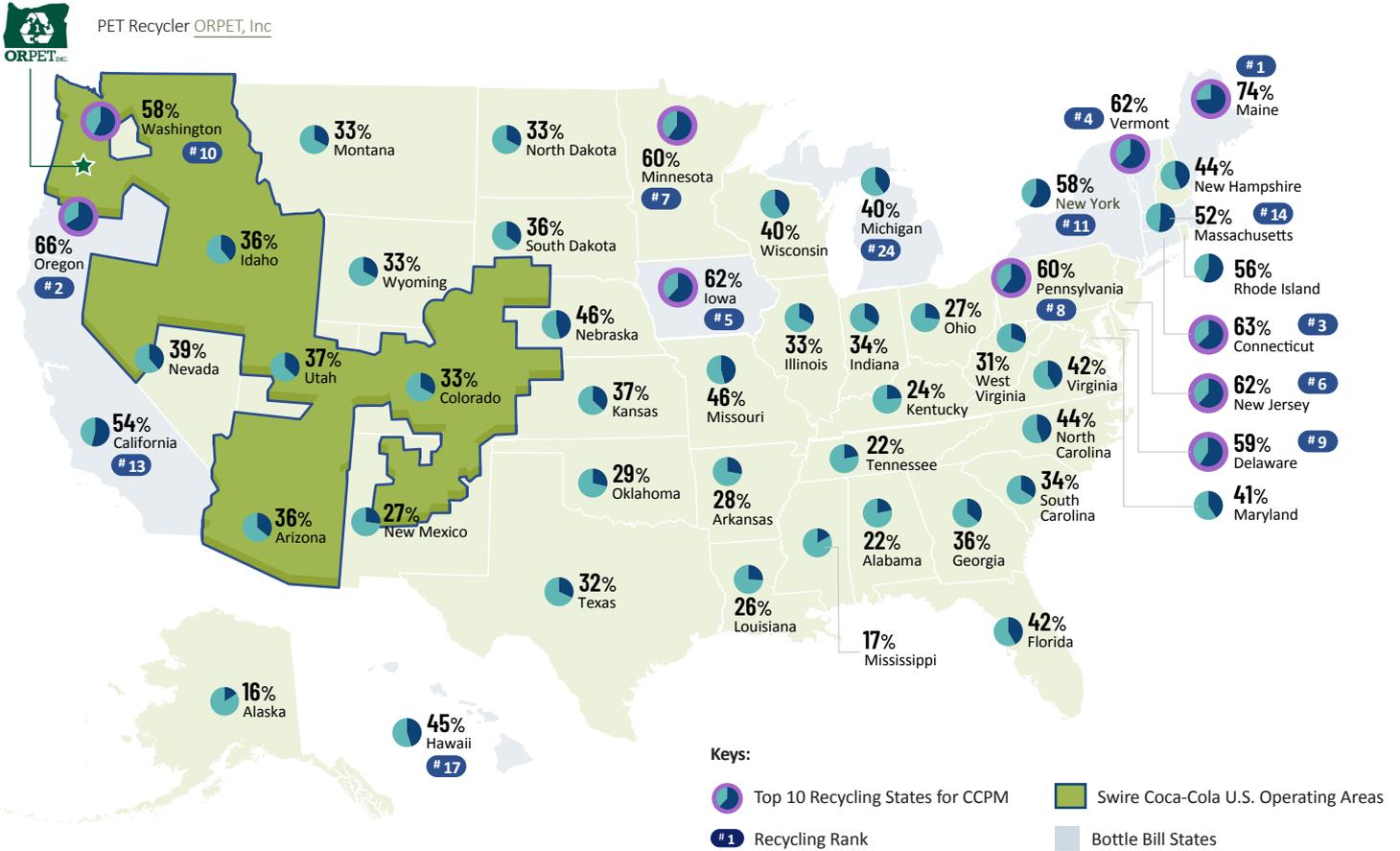
1. Environmental Protection Agency. <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/advancing-sustainable-materials-management>

## Collection Rates Listed according to CCPM Recycling Rank



STATE OF THE STATES

Source: Eunomia, The 50 States of Recycling.  
<https://eunomia.eco/reports/the-50-states-of-recycling-2023/>



	Recycling rate*	Recycling refund	
Maine	65%	Yes	✓
Vermont	51%	Yes	✓
Massachusetts	48%	Yes	✓
Iowa	45%	Yes	✓
<b>Oregon**</b>	<b>45%</b>	Yes	✓
New York	44%	Yes	✓
California	41%	Yes	✓
Michigan	40%	Yes	✓
New Jersey	39%	No	✗
Connecticut	39%	Yes	✓

**Note:**  
 \* Recycling rates include glass to aggregate and landfill cover.  
 \*\* Oregon, where we operate, has a DRS in place.

### Takeaway from Eunomia:

While recycling rates in the U.S. are mostly unchanged, there are some significant differences between 2018 and 2021 due to the inclusion of better data. This highlights the importance of ongoing efforts to enhance recycling systems in the U.S.

Well-designed recycling refund programs and EPR measures can help increase recycling rates. Detailed analysis at regional and state levels indicates EPR schemes for packaging and paper products, combined with recycling refunds for beverage containers, will optimise the amount of materials recycled.