



TOWARDS A SUSTAINABLE FUTURE:  
**ADVANCING ASEAN'S  
ENVIRONMENTAL AGENDA**



ASIA PACIFIC INTERNATIONAL SPIRITS & WINES ALLIANCE

SUPPORTING PARTNERS





## Asia Pacific International Spirits & Wines Alliance

The Asia Pacific International Spirits and Wines Alliance (APISWA) proudly represents 11 global spirits and wine producers operating across the Asia-Pacific region. Our member companies include: Bacardi, Beam Suntory, Brown Forman, Campari, Diageo, Edrington, Moët Hennessy, Pernod Ricard, Proximo, Remy Cointreau and William Grant & Sons.

APISWA aims to foster an environment where legal spirits and wine can be enjoyed responsibly, and which supports a vibrant, sustainable, and responsible hospitality and tourism industry. APISWA is focused on protecting the interests and safety of consumers and on ensuring that alcohol is enjoyed in moderation, in ways that are appropriate to the local context and in line with international best practice.

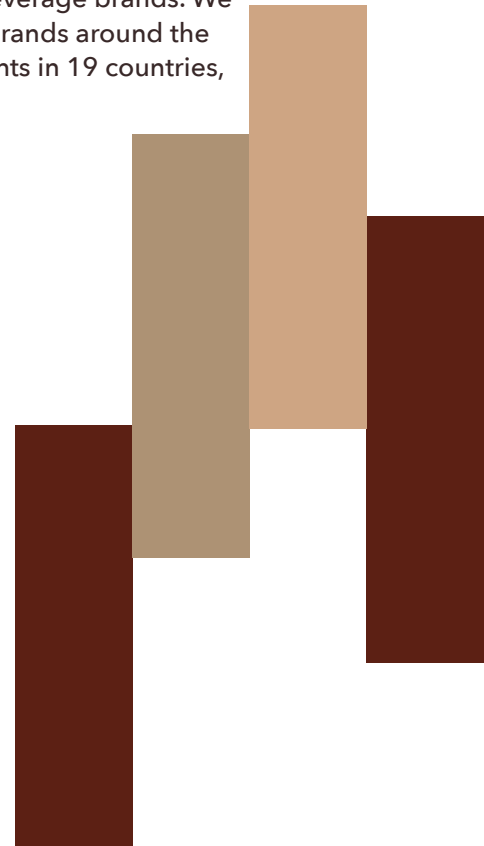
<https://www.apiswa.org>

## Supporting Partners



At O-I Glass, Inc. (NYSE: OI), we love glass, and we are proud to be one of the leading producers of glass bottles and jars around the globe. Glass is not only beautiful, it is also pure, healthy, and completely recyclable, making it the most sustainable rigid packaging material. Headquartered in Perrysburg, Ohio (USA), O-I is the preferred partner for many of the world's leading food and beverage brands. We innovate in line with customers' needs to create iconic packaging that builds brands around the world. Led by our diverse team of approximately 23,000 people across 68 plants in 19 countries, O-I achieved revenues of \$7.1 billion in 2023.

<https://www.o-i.com>



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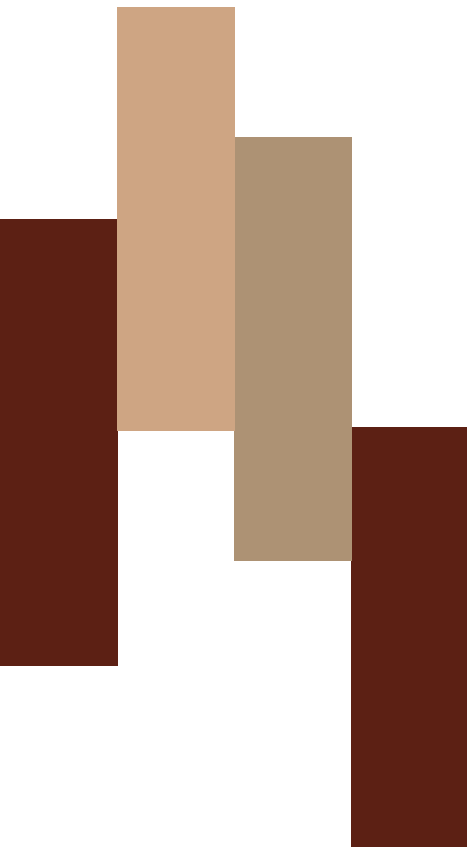
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# INTRODUCTION

The ASEAN region is one of the most susceptible to climate change, with three of its countries – Myanmar, the Philippines, and Thailand – among those that have suffered the greatest fatalities and economic losses because of climate-related disasters<sup>1</sup>. In other areas across Southeast Asia, the changing climate has already caused floods in coastal areas and negative impacts to agricultural production. The International Monetary Fund predicts that climate change could decrease Southeast Asia's overall GDP by over 11%<sup>2</sup>.

Guided by ASEAN Vision 2025, ASEAN cooperation on the environment is outlined in the ASEAN Socio-Cultural Community Blueprint (ASCC) 2025 that strives to promote and ensure balanced social and sustainable development through coordinated efforts on key priority areas:



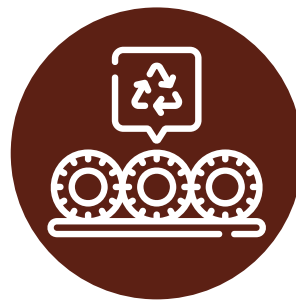
(i) Conservation and sustainable management of biodiversity and natural resources



(ii) Promotion of environmentally sustainable cities



(iii) Response to climate change



(iv) Sustainable consumption and production<sup>3</sup>

Members of the Asia Pacific International Spirits and Wines Alliance (APISWA) have set global commitments to reduce the overall environmental impact of their operations and contribute positively to society. We believe that this is part of our role as a responsible industry committed to supporting the United Nations Sustainable Development Goals (UN SDGs) and are aligned to the 2030 plan.

## SUSTAINABLE DEVELOPMENT GOALS



In the ASEAN region, APISWA strives to be a part of the solution to fight climate change and protect and preserve natural resources for future generations by working closely with all relevant stakeholders to contribute to the ASCC 2025.

This report outlines the various programmes that APISWA member companies have been investing in to support climate goals. Programmes and case studies shared will span three areas: Tackling Climate Change (in support of SDGs 7 and 13), Preserving Water Resources (in support of SDGs 6 and 14), and Moving to a Circular Economy (in support of SDGs 9 and 12).



In addition, the report will also include a section deep-diving into glass and circularity. The source of up to 90% of a company's carbon emissions are within Scope 3, comprising elements such as packaging and transportation. With almost all spirits and wine products packaged in glass, APISWA member companies have significantly invested in solutions that aim to decrease carbon emissions from packaging.

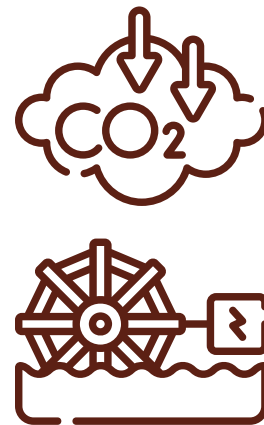
Cognisant of the need to do more to address post-consumer waste, governments in ASEAN member states have also begun introducing regulations on extended producer responsibility (EPR), requiring manufacturers and importers to contribute to national efforts to increase recycling rates. With glass collection and recycling being a shared imperative for the industry, APISWA has invested in programmes to drive collective action and action plans targeted at addressing glass recycling.

# OUR GLOBAL COMMITMENT TO ENVIRONMENTAL SUSTAINABILITY



APISWA member companies have individually developed sustainability strategies that reflect their commitment to protect the environment and advance environmental sustainability along their entire value chain.

In this section, we look at the individual global ambitions and sustainability commitments of APISWA members to achieve long-term sustainable goals within their communities, consumers and broader society, including practical case studies on actions taken by companies to reduce carbon emissions and increase water efficiency to advance environmental sustainability along the entire value chain.



Our member companies actively invest resources into initiatives that include reducing carbon emissions, improving water efficiency, creating sustainable packaging and reduction of waste to ultimately achieve a true circular economy for future generations. Some members produce annual reports tracking current progress against their longer-term roadmap of sustainability ambitions.

# OUR GLOBAL COMMITMENTS

## APISWA MEMBER COMMITMENTS



### BACARDI LIMITED

Bacardi's four priority areas are: "**Good Spirited Priorities**" - Bacardi has committed to reducing absolute operational GHG emissions (scopes 1 and 2) by 50% by 2025 from a 2015 base-year. The commitment also includes achieving water positivity across all of their operations by 2030.

<https://www.bacardilimited.com/esg>

### Good Spirited Priorities

OUR FOUR ESG FOCUS AREAS



WE'RE DRIVEN TO BE THE MOST RESPONSIBLE GLOBAL SPIRITS COMPANY IN THE WORLD.

### Beam SUNTORY



The **Proof Positive** strategy is Beam Suntory's roadmap to a more sustainable, equitable future - With a commitment to achieving a net positive impact on the environment, with consumers, within its communities, and with its employees, Beam Suntory is advancing ambitious long-term sustainability goals aligned to the United Nations' Sustainable Development Goals (UN SDGs) and stemming from the Suntory Group's Sustainability Vision.

[https://www.beamsuntory.com/sites/default/files/2022-09/Beam\\_Suntory\\_2022\\_Sustainability\\_Report.pdf](https://www.beamsuntory.com/sites/default/files/2022-09/Beam_Suntory_2022_Sustainability_Report.pdf)



## BROWN-FORMAN



Elevating Our Environmental Commitment. Caring for natural resources and the climate isn't simply a business concern for us. From the fields that grow our grains, agave, and grapes, to the water we transform into our spirits, to the oak for our barrels, we depend on the earth's bounty. It's about committing to the environment that sustains us, caring for the resources we share with our community, and nurturing what we have for those that come after us. When it comes to environmental sustainability at Brown-Forman, we are committed to making an impact in these six key areas: Climate Action, Water Stewardship, Circularity, Sustainable Packaging, Sustainable Agriculture, Sustainable Forestry.

<https://www.brown-forman.com/environmental-sustainability>

## CAMPARI®

Campari Group operates according to a criteria of social responsibility and sustainability in the management of its business activities, consistently with the system of values that has always guided it and that it considers of fundamental importance for company growth.

As its business grows, Campari Group constantly comes across new opportunities to generate positive economic, social and environmental impacts. A culture of ethics permeates the entire company, ensuring that every business is managed with probity and integrity. Campari Group's approach to sustainability identifies the four areas through which the Group's Commitment to creating value in each business area is structured.

<https://www.camparigroup.com/en/page/sustainability>







# DIAGEO

'Society 2030: Spirit of Progress' is Diageo's 10-year ESG action plan to help create a more inclusive and sustainable world. Diageo's 'Society 2030: Spirit of Progress' priorities reflect the most material issues affecting our company, our people, our brands, our suppliers and our communities. Our strategic priorities are to promote positive drinking, champion inclusion and diversity and pioneer grain-to-glass sustainability. Doing business the right way underpins everything we do. Aligned to the UN SDGs, Diageo's 25 ambitious targets will lead our business over the next decade and deliver a positive impact on society, everywhere we live, work, source and sell.

<https://www.diageo.com/en/esg>

# EDRINGTON



Edrington is committed to reducing emissions in our operations, across our supply chain and our brands to become Net Zero by 2045. While our first priority is to reduce the carbon emissions from our own production processes, we will be working closely with our suppliers to reduce Scope 3 emissions across the whole value chain. We report our carbon dioxide emissions in line with the [Greenhouse Gas Protocol Corporate Standard](#). This means that we report Scope 1 and 2 emissions from our operations in line with the [Streamlined Energy and Carbon Reporting](#) requirements. In addition to this, we include Scope 3 emissions related to the production of grain whisky used in our Blended Scotch Whisky.

<https://www.edrington.com/en/sustainability-and-responsibility>



# Moët Hennessy



As a global leader in luxury wines and spirits composed of many iconic Maisons, Moët Hennessy has a special responsibility towards our stakeholders and the planet. It is our mission to maintain the right balance between pursuing our business activities and respecting nature's needs. We have formalized and structured our commitment in our sustainability program **LIVING SOILS LIVING TOGETHER**, which acts as a roadmap to steer our efforts towards achieving this ambition. The roadmap is centred around four commitments: 1) Regenerating soils, 2) Mitigating our climate impact, 3) Engaging society and 4) Empowering our people. This program falls within the wider LVMH Life 360 program, which sets out the Group's environmental objectives for the next 3, 6 and 10 years.

<https://www.worldlivingsoilsforum.com/en/content/developpement-durable>



Pernod Ricard

*Créateurs de convivialité*

Pernod Ricard's "**Good Times from a Good Place**" Sustainability & Responsibility roadmap directly supports the UN SDGs and is aligned to their 2030 plan. The four pillars of Pernod Ricard's roadmap, Nurturing Terroir, Valuing People, Circular Making and Responsible Hosting, address all aspects of the value chain from grain to glass. Each pillar sets out ambitious goals and targets to drive innovation, brand differentiation and employee attraction. The strategy has been implemented throughout the business including measurement and reporting against these targets.

<https://www.pernod-ricard.com/en/sustainability-responsibility>

GOOD TIMES  
FROM A  
GOOD PLACE.



# PROXIMO



The Proximo ESG strategy is based on three pillars for a sustainable future: **From Source to Market; Looking After Our People; and Sustainable Governance.** Ongoing efforts reduce our negative environmental impact through innovative solutions in energy, waste, water, sourcing, and packaging of our products. We create a positive impact in the life of our employees and communities through initiatives in responsible marketing and drinking, community development, and occupational health and safety. We are committed to establishing a system where sustainability succeeds by seeking ways to reduce emissions generated by our operations and improve our resiliency to climate changes, improve management of water resources and ensure the safe discharge of wastewater, and reduce waste losses to lessen the stress on natural resources.

<https://www.cuervo.com.mx/esg/>



# RÉMY COINTREAU



Sustainability has been part of the Rémy Cointreau Group DNA for years (Rémy Cointreau joined the Global Compact in 2003). But in 2020, Rémy Cointreau initiated a new profound transformation of its model, in all areas, to adapt to major changes in the world.

Sustainable development is one of the four major pillars of this transformation and a strategic priority for all teams. The roadmap for its sustainable transformation is entitled "**Sustainable Exception**". It is based on its three main values - Preserving our terroirs, Acting for our people and our communities and Committing through time - and targets a series of objectives for 2025, 2030 and 2050. Rémy Cointreau has defined reduction targets, approved by the Science-Based Target initiative. They aim to achieve a 50% reduction in GES emissions per bottle by 2030 and to reach Net Zero by 2050.

<https://rapport-annuel.remy-cointreau.com/2023/en/csr/sustainable-exception/>



INDEPENDENT FAMILY  
DISTILLERS SINCE 1887

# WILLIAM GRANT & SONS

William Grant & Sons is fully aligned with the Scotch Whisky Association (SWA)'s ambition for the future, grounded in the UN SDGs.

The SWA's four big goals are: tackling climate change by having net zero greenhouse gas emissions in the industry's own operations by 2040; moving to a circular economy by making all new packaging widely recyclable by 2025; hitting responsible water use targets by 2025; and caring for the land through the active conservation and restoration of Scotland's peatland by 2035.

<https://www.scotch-whisky.org.uk/insights/sustainability/>

# OUR GLOBAL COMMITMENTS

## TACKLING CLIMATE CHANGE



Climate change is one of the greatest challenges we face on this planet. As an industry, we acknowledge the need to limit global temperature rises to no more than 1.5°C, advancing the goal of the Paris Agreement<sup>4</sup>.

To support this agenda, APISWA members commit to practices that contribute towards the reduction of carbon emissions to achieve net-zero in our operations all the way to retail and end-of-life of our products:



**Reducing direct emissions: by reducing the use of fossil fuels in our distilleries (Scope 1) and due to the electricity, heat or steam purchased and consumed which generates greenhouse gas emissions (Scope 2)**



**Reducing indirect emissions: by making our products - packaging materials and raw materials sourcing - and logistics/transport services (Scope 3) more sustainable.**



**Beam Suntory** is committed to reducing its greenhouse gas emissions and achieving net zero carbon emissions across its value chain by 2030 to sustainably meet current and future demand for its iconic brands. Beam Suntory is investing more than \$400 million to expand production at

its Booker Noe distillery in Boston, Kentucky, which produces Jim Beam®. This expansion will increase the distillery's capacity by 50%, while reducing the greenhouse gas emissions by the same amount. 3 Rivers Energy Partners will design, build, own and operate a \$118 million facility that will convert spent stillage into renewable natural gas (RNG) using anaerobic digesters. The facility is expected to produce up to 1.3 million MMBtu of RNG. This RNG will be refined to pipeline standards and piped directly to the Booker Noe distillery. Additionally, these anaerobic digesters will produce a high-quality, low-cost natural fertiliser, which will be made available to local farmers. This natural fertiliser will support and expand sustainable and regenerative agricultural practices.



The **Jack Daniel Distillery** is the first distillery to sign a Green Invest deal which provides nearly three-quarters of its electricity needs. In partnership with the Tennessee Valley Authority (TVA), Duck River Electric Membership Corporation, and solar power producer Silicon Ranch, the distillery will receive 20 megawatts of solar energy in 2024.

“Our commitment to making great whiskey is only matched by our commitment to preserving the world we call home through sustainable practices,” said Jack Daniel’s SVP, General Manager, Supply Chain, Melvin Keebler. Since 2018, Green Invest has procured over 2,100 megawatts of solar for its customers - maintaining TVA’s green energy leadership in the Southeast United States.



**Diageo** targets to be net zero in its direct operations (Scope 1 and 2) by 2030, with the goal of harnessing 100% renewable energy. Diageo has already halved the carbon emissions associated with its operations since 2008. In 2022, Diageo announced the building of its first [malt whisky distillery in China](#). Renewable and clean technologies will be used to ensure it is carbon neutral, recycles all the water it uses, and is a zero-waste site. We continue to invest in carbon-neutral facilities - in addition to our four carbon-neutral distilleries in Scotland and North America, are designing new sites in Mexico, Canada, and Ireland to be as efficient and low-emitting as possible.

**Moët Hennessy** is supporting innovative low-carbon solutions for transatlantic shipments as part of its commitment to sustainable transportation. Starting in 2023, Hennessy will partner maritime transport company Neoline to transport 4 million bottles between France and the US annually using cargo sailboats powered by clean, renewable wind energy. This alternative transport is expected to cut carbon emissions by 90% compared to a conventional vessel, in addition to reducing the risk of marine pollution and the impact on biodiversity.

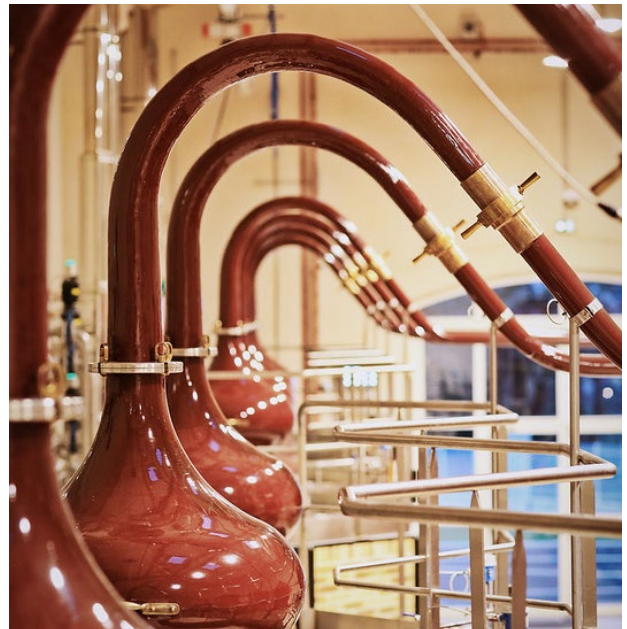


**Proximo** launched *The Recycled Bar by 1800 Tequila* in Sydney in December 2022. This pop-up bar was made exclusively from waste destined for landfill and was designed to look like waste being poured out of a tipping truck, aimed at bringing Australia's waste problem to life. While stationed at the Royal Botanical Gardens, Sydney, guests could enjoy a unique cocktail experience with circular waste décor, low-waste cocktails and zero-waste canapés. The bar was designed not only to highlight the volume of waste that Australia is putting into the ground, but also to champion the creative potential of our waste, showcasing products made by 22 Australian artists and designers finding innovative ways of keeping trash out of the ground.



By 2025, production of **Absolut Vodka** will be fossil free - the distillery is already one of the most energy-efficient in the world emitting nine times less CO<sub>2</sub> per litre of alcohol than the average distillery, based on the 2021 BIER benchmark figures and has been carbon neutral since 2013. More than 75 per cent of the energy used for production is renewable and carbon emissions per litre have been reduced by 80 per cent at the bottling sites and distillery thanks to industry-leading energy innovations.

**Rémy Cointreau** is committed to reducing its scope 1 and 2 emissions by 42% between 2020 and 2030. To achieve that target, it strives to apply the same energy strategy in its 7 production sites: sobriety, efficiency and development of renewables. In 2022, 38% of the energy consumed was from renewable sources (biogas, solar, wind, etc.). The Group aims for 100% renewable energy by 2030, with different solutions depending on sites. For instance, while the House of Rémy Martin is already distilling its own eaux-de-vies with biogas, it has been funding a “Sustainable Distillation” experiment which consists of using a new steam distillation heating process instead of gas (or biogas), largely decarbonise the distillation process of cognac eaux-de-vies.





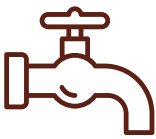
# OUR GLOBAL COMMITMENTS

## PRESERVING WATER RESOURCES

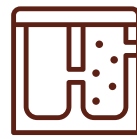


Water is an essential component of the products we manufacture as wines and spirits producers, and is used at every stage of the product's life cycle, directly or indirectly.

To support this agenda, APISWA members commit to practices that contribute towards achieving water positivity<sup>5</sup> across our operations by:



**Limiting and/or reducing water consumption at production sites**



**Treating wastewater efficiently in our production sites**



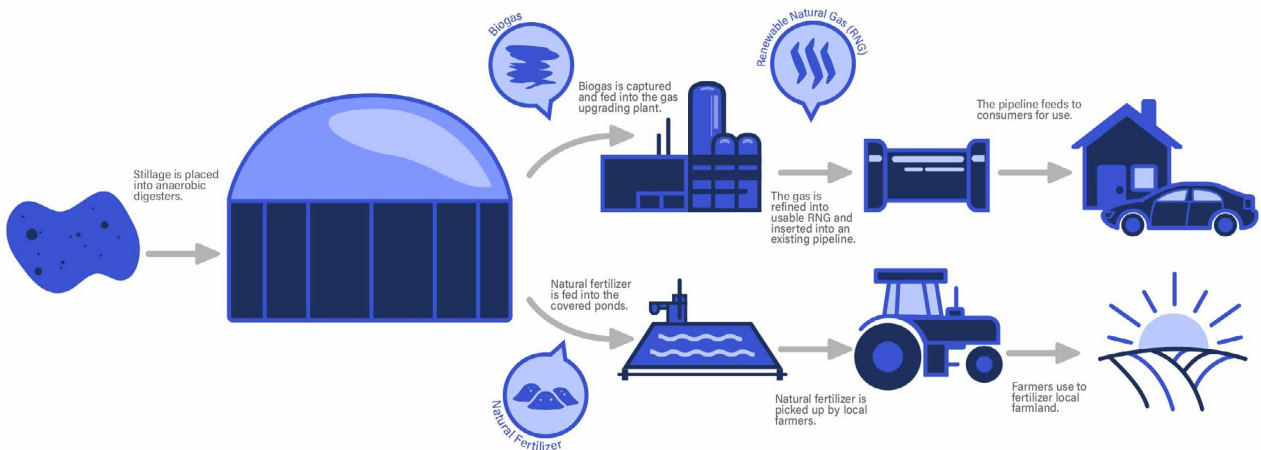
**Replenishing more water than we use in for our operations in water-stressed areas**



**Supporting collective action to protect and improve water accessibility, availability and quality to contribute towards a net positive water impact**

**Beam Suntory** is committed to balancing its water use by designing its operations to reduce the amount of water used, replenishing more than it consumes and protecting and recharging natural sources for the next generation. Beam Suntory has an ambitious target to halve their water usage rate by 2030. In 2022, the company's Annual Incentive Plans included a goal to reduce water usage by

5% vs. 2021. They surpassed their goal, achieving a 10% reduction through investments in closed-loop cooling systems at its Clermont and Booker Noe distilleries in Kentucky. The system installed at the Clermont, KY, facility - where Beam Suntory distills Jim Beam® - reduced the average volume of water recirculated from an on-site lake by more than 35 million gallons per month.





Casa Herradura has been a pioneer in establishing a water recycling and treatment plant that meets government standards and is one of **Brown-Forman's** zero waste to landfill sites. Less than one percent of the solid waste generated goes to landfill, creating a more sustainable process and product. Over the past decade,

Brown-Forman has made significant investments in state-of-the-art technology and implementation of processes for environmental care. Casa Herradura uses a steam boiler that takes biogas from the wastewater treatment plant and biomass for fuel, which turns waste into energy as a closed loop, which generates fewer emissions.



In Indonesia, **Diageo** has partnered with the Environment Bamboo Foundation on agroforestry projects aimed at water replenishment in Bali. The programme will not only replenish more water than is used in operations but also restore 7,500 hectares of critical land, increase absorption of underground water and 19.8 kilotons of CO<sub>2</sub>, and empower 150 farming families with a projected increase in income of IDR 240 million per village by the third year. Diageo is a founding member of the Water Resilience Coalition, and invests in WASH projects globally. By 2030, every drink Diageo produces will on average use 30% less water and by 2026, we will replenish more water than we use in all our water-stressed areas.

In the water-scarce region of Mendoza in Argentina, Terrazas de los Andes has adapted its water management in the vineyards to optimise its usage for irrigation and the winery's operations. Over the years, the **Moët Hennessy** Maison has moved from traditional flood irrigation to drip and precision irrigation, allowing for the reduction of water usage to the exact needs of the plant. Precision irrigation has saved up to 65% of water compared to flood irrigation (from 1,200 mm to 400 mm), representing a total of 4 million m<sup>3</sup> a year for 500 hectares of Terrazas vineyards. Supporting these efforts is a dedicated local team of five agronomists who monitor water efficiency and the needs of the grapevines.



In India, **Pernod Ricard's** 'Water Agriculture Livelihood' initiative fosters water resilience and promotes sustainable agriculture, while helping to increase the income of small farmers and women farmers. Communities are strengthened through water development, including the creation of structures to recharge ground water in dams and wells, the building of ponds and tanks to store ground water, and the promotion of irrigation techniques to save water in agriculture. As of 2022, over 2,500 million litres of potential water have been created, contributing to the livelihoods of more than 120 villages across 5 states.



**Rémy Cointreau** is committed to reducing water resources all along its production cycle. Three key actions were implemented in 2022:

- 1) installing flow meters, in order to measure water consumption at the various stages of the production chain, as well as the quantity of water returned to the planet (without transformation) at the end of the process;
- 2) launching rainwater harvesting projects at sites that are not yet equipped (Cognac and Domaine des Hautes Glaces); and
- 3) increasing water circularity: a new cooling water recycling system was installed at the Bruichladdich distillery (in Islay). Combined with a sub-cooler system for condensers, this new installation is expected to reduce cooling water consumption by up to 80% during the summer months.

# OUR GLOBAL COMMITMENTS

## MOVING TO A CIRCULAR ECONOMY



The impact of our activities on the environment begins with the design of products and packaging and continues throughout their life cycle. We share a world of finite resources, under huge pressure. As an industry, we strive to minimise waste at every step by imagining, producing and distributing our products in ways that optimise and help preserve natural resources.

To support this agenda, APISWA members commit to practices that contribute towards adopting a circular mindset and approach in our primary, secondary and tertiary product packaging design and development, following the principles of:



**Reduce:** Optimise design to reduce size and weight, as well as limit the number of items, nothing unnecessary.



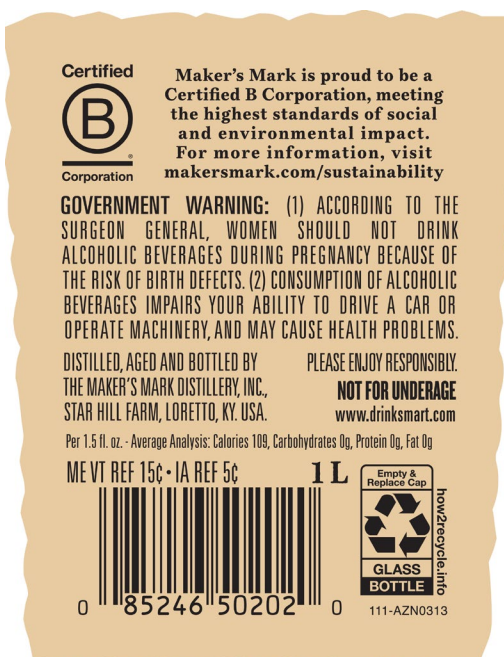
**Reuse:** Where possible, move from single-use to keep packaging refillable and reusable as long as possible.



**Recycle:** Choose recyclable materials where possible



**Rethink:** Think out of the box to challenge the need for each packaging component and explore new circular solutions



**Beam Suntory** is incorporating innovative design principles to use less input materials in packaging and make it easier for consumers to recycle, with the goal of making its footprint smaller and producing less waste overall while still delivering a premium brand experience for its consumers. In 2022, Beam Suntory joined the How2Recycle® label program to assess the recyclability of its packaging portfolio in the United States and Canada. Maker's Mark is the first brand to adopt the How2Recycle smart-label system on-pack across both the US and Canada. The smart-label system clearly communicates transparent recycling instructions, so consumers can take proper action to recycle and dispose of our various packaging elements. They anticipate additional brands to follow in the coming years.

For an 8 week period in April and May 2023, and in celebration of Earth Month, the New Hampshire Liquor Commission (NHLC) teamed up with **Jack Daniel's** and Recycleworks, a state-of-the-art processing facility, to launch a first-of-its-kind recycling program - Bring Back Jack. During this period, customers and licensees had the opportunity to bring back their empty glass wine or spirits bottles for recycling and receive incentives.

Over 34,000 pounds of glass was collected at New Hampshire Liquor & Wine Outlets, generating roughly 34,000 new wine/spirit bottles! Bring Back Jack was just the start, with our sustainability team also sharing New Hampshire's municipal recycling guidelines with consumers to continue recycling after the conclusion of the Bring Back Jack collections.



<https://www.liquorandwineoutlets.com/bringbackjack>

**Diageo** is committed to reducing packaging and increasing the recycled content in the packaging we produce. We have made important strides in reducing our environmental impact over decades of focus on cutting down packaging, increasing recycled content and eliminating waste. In 2020, we achieved zero waste to landfill at all our supply and office sites. In 2022, Diageo announced a programme to phase out the use of 183 million cardboard gift boxes from its premium Scotch portfolio around the world. Diageo had also contributed to the establishment of the British Aluminium Consortium for Advanced Alloys (BACALL), a collective of industry experts who will create a circular economy for aluminum in the UK.



**Moët Hennessy** and its Maisons are working on diverse solutions to reduce the environmental impact of glass in their activities. This includes finding ways to decrease the weight of glass bottles, increasing the recycled content of bottles and working with strategic suppliers to decarbonise the glass production process. A notable example is the development of a tradition-defying amber glass bottle for Château Galoupet's Cru Classé Rosé that is made from 70% recycled glass. At 499g, it also weighs 271g less than the average bottle of rosé, allowing for energy savings in not just the production process but during transportation as well.



In 2022, **Pernod Ricard** launched a major initiative to remove permanent mono-cartons across its portfolio of brands in India. Starting with 500 million pieces annually under Indian Made Foreign Liquor brands, the initiative will be gradually extended to include the portfolio of imported brands. Since the launch, secondary packaging waste has been reduced by over 18,000 tonnes and CO2 emissions by 7000 tonnes, saving 250,000 trees per year. Additional efforts to combat deforestation have been made through the planting of 1.2 million trees. With this move, Pernod Ricard will become the first to achieve a zero-waste-to-landfill contribution for permanent mono-cartons in the country.



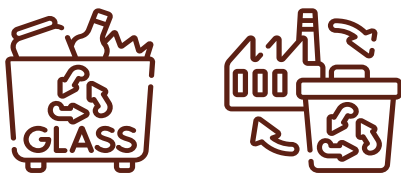


In 2022, **Rémy Cointreau** launched the “One Bottle for Eternity program”. Glass bottles are infinitely reusable. It is on the basis of this assumption that the Rémy Cointreau Group aims to develop several projects based on circular consumption methods by 2030. Our pilot - Mount Gay - is testing a deposit system: empty bottles are collected, cleaned and refilled with the objective of reusing 30 to 40% of bottles by 2027.



# POST-CONSUMER GLASS WASTE IN ASEAN

## OVERVIEW



Glass is a crucial part of our industry, as it makes up the largest proportion of our primary packaging material. The greatest benefit of glass packaging is that it is 100% recyclable and can be recycled endlessly without a loss in the quality or purity of it. This makes it an ideal candidate for a circular economy. Glass can be made from readily available raw materials such as sand, soda ash, and limestone as well as cullet. Cullet is the term for glass which has been recycled and is ready for the furnace. It can substitute up to 95% of raw materials used to make glass. Through glass recycling, manufacturers benefit from energy savings and reduction in the consumption of raw materials and carbon emissions<sup>6</sup>.

**Glass is 100% recyclable, yet worldwide, 79% of glass is not recycled. Improving recycling is vital to the circularity of glass to further offset the demand for natural resources and leverage the infinite recyclability of glass.**



In line with being a responsible industry towards the UN SDG Goal 12 'Responsible Consumption & Production', APISWA members commit to maximising our role in creating a circular economy by minimising the impact of packaging and waste across our sector and ensuring that resources are used sustainably.

Our members are actively engaged in tackling the problem of sustainable packaging by committing to the following goals:



**Using recyclable packaging for products**



**Increasing the percentage of recycled content in our packaging**



**Eliminating or minimising the use of single-use plastics across products**



**EcoSPIRITS: The world's first low carbon, low waste packaging technology for premium spirits and wine.**

In 2020 the world produced 689 billion units of single use glass packaging; 70 billion of these bottles were single use glass spirits and wine bottles with an average carbon footprint of 550g of CO2 per bottle. Adopting a circular business model is crucial in our industry's effort to reduce our carbon footprint from glass in areas from manufacturing and transporting to recycling of glass material waste.

APISWA member companies Diageo, Pernod Ricard, Remy Cointreau, and Bacardi Limited, have all collaborated on different projects with ecoSPIRITS, a circular economy technology company that has developed the world's first low carbon, low waste packaging technology for premium spirits and wine. Thanks to this innovative closed-loop distribution model, we have seen a 60-90% reduction in the carbon emission footprint of premium spirits and wine packaging and distribution.










<https://ecospirits.global/>

## Extended Producer Responsibility

Cognisant of the need to do more to address post-consumer waste, governments in ASEAN member states have also begun introducing regulations on Extended Producer Responsibility (EPR), requiring manufacturers and importers to contribute to national efforts to increase household recycling rates of materials like PET plastics, aluminium cans and glass.



## Status of EPR Framework in ASEAN markets

Country	National EPR framework	Inclusion of glass waste
 Cambodia	Cambodia's Roadmap for Sustainable Consumption and Production 2022-2035 outlines the goal to develop EPR schemes by studying options for pilot testing by 2027. The strategy is primarily focused on plastic.	No
 Indonesia	The legal framework of EPR in Indonesia is enshrined in the enactment of the Ministry of Environment and Forestry Regulation No. 75/2019, also known as the "Waste Reduction Roadmap". The Roadmap sets out a waste reduction mandate for 2020-2029, where producers in three sectors (manufacturing, F&B services, and retail) must reduce their waste production by 30 percent in 2029. It includes glass packaging waste.	Yes
 Lao PDR	N/A	N/A
 Malaysia	Malaysia is focused on EPR as the main policy mechanism for recycling packaging. A mandatory EPR system is likely to be implemented from 2026 onwards. While the initial focus is on plastics, the EPR scheme is likely to cover most post-consumer packaging materials including glass. This policy vision is outlined in the RML-12, the KPKT Strategic Action Plan 2021-2025, and the Malaysia Plastics Sustainability Roadmap 2021-2030.	In progress
 Myanmar	N/A	N/A
 Philippines	The Extended Producer Responsibility Act (EPRA) of 2022 or Republic Act No 11898 sets the framework for EPR schemes in the Philippines. It is only applicable to plastic packaging material. It requires large producers, by themselves or collectively, without a Producer Responsibility Organisation (PRO), to prepare and register their EPR programmes to reduce and/or recover for reuse, recycling, treatment or proper disposal packaging waste. Glass packaging waste will be included in the scope of the EPR Act in the future.	In progress
 Singapore	Singapore's Resource Sustainability Act 2019 regulates the operation of producer responsibility schemes and promotes resource sustainability. Mandatory Packaging Reporting was introduced in 2021, followed by the first phase of an EPR approach with the introduction of a beverage container return scheme for metal and plastic containers by 2025. A mandatory take-back scheme for beverage containers, which includes glass, will be developed as the next phase of an EPR approach.	In progress
 Thailand	The Pollution Control Department is drafting the Sustainable Packaging Management Act, which focuses on the management of all packaging materials in food and beverage packaging, including glass. The Act is to be approved in early 2024 and will be supported by implementing sub-regulations.	In progress
 Vietnam	Waste collection and treatment responsibilities for manufacturers and importers was first introduced in Vietnam under the Law on Environment Protection (LEP) 2005 and 2014. In 2020, the LEP for the first time introduced comprehensive provisions for an EPR scheme. This is supported by the implementation of Circular 02/2022/TT-BTNMT and Decree 08/2022/ND-CP. The scope of the LEP includes glass packaging.	Yes

Whilst the management of waste post-consumption is the responsibility of government bodies and its related national and/or local level administrators, EPR schemes extend the responsibility of end-of-life packaging management to producers as well.

**According to the OECD, EPR is a policy approach under which 'producers' are given a significant responsibility - financial and/or physical - for the treatment and disposal of post-consumer products<sup>7</sup>. What this means in practice is that:**

- EPR is only one of many policies that work together when addressing waste management
- 'Producers' can be consumer goods companies, importers, and retailers etc.
- Responsibility is shared and in collaboration with government entities who have the overall waste management responsibility
- Responsibility of producers can be financial (e.g. contributing EPR fees) and/or operational (e.g. collection of waste packaging)

As complying with EPR can be complex and oftentimes costly for individual companies, producers may jointly establish a Producer Responsibility Organisation (PRO) to collectively fulfil any obligations under an EPR. Generally, PROs are viewed as predominantly non-profit and fully industry-owned, hence better able to manage a heterogenous waste management ecosystem amidst a rapidly evolving packaging and recycling landscape.<sup>8</sup>

 Country	 Glass recycling rate	 Non-profit	 Industry owned	 Household collection	 Specialised glass drop-off bins	 Drop-off points (incl. bring back)
Austria	>90%	✓	✓		✓	
Belgium	97%	✓	✓		✓	
Ireland	84%	✓	✓	✓	✓	✓
Bosnia & H.	12%	✓	✓		✓	
Bulgaria	61% (2013)	✓	✓	✓	✓	
Croatia	58.4%	✓	✓	✓	✓	
Cyprus	30%	✓	✓		✓	
Greece	46%	✓	65%		1 bin for all recyclables	
Luxembourg	98.4%	✓	✓	✓	✓	✓
Macedonia	23%	✓	✓		✓	✓
South Korea	64%	✓			✓	✓
Japan	75%	✓	✓	✓	✓	✓

PRO set-up and collection mechanisms vary from country to country, but in the majority of cases, are industry-owned.

**MAREA - the Malaysian Recycling Alliance - was established in 2021 by ten leading Fast-Moving Consumer Goods (FMCG) companies as a voluntary Producer Responsibility Organisation. While MAREA's initial focus is on plastic packaging, the aspiration is to cover other material types in the future, including glass, and to demonstrate that an industry led PRO in Malaysia can be an effective solution.<sup>9</sup>**

<https://www.marea.com.my/>

MAREA defines EPR in the following manner:

- A voluntary industry-driven pre-competitive solution in tackling packaging waste issue
- Cost-effective approach for multiple materials
- Collector of voluntary levies/fees and represents the obliged industry
- Led by professionally run, not-for-profit entity that acts as interface between industry, consumers, government & NGOs
- Strengthens existing collection and recovery to improve recycling system in Malaysia<sup>10</sup>

Whilst APISWA is aligned on the intention of EPR schemes, we are committed to greater research and better understanding of their role as an optimised circular or closed-loop solution. APISWA is open to working with governments and relevant operators to ensure a well-established EPR framework is in place which includes the following:



**Industry-led:** If EPR is the best solution, the design and delivery of the EPR should be led by the industry in collaboration with the local authorities.

**Transparency & Clarity:** All organisations impacted by the EPR should have access to a clear understanding of each aspect of the scheme and its reporting mechanisms for effective implementation.



**Accountability:** For the EPR to be implemented and enforced in an effective manner, all actors (producers, DRS systems, waste management companies, recyclers, local authorities, local and international companies, etc) that fall under the value chain must fulfil their obligations.

**Trade-friendliness and fair treatment:** Systems must be designed in a way that sustainable international trade flows are not rendered impossible as a result. Specific considerations for imported products may be warranted in EPR system designs. Systems must ensure they do not add a further layer of cost & complexity that they end up incentivising once again illegal flows, already widely prevalent in Asia for higher end consumer goods. They should further be designed in a way that ensures non-discrimination and fairness between imported and domestically produced products.



# DYNAMICS OF GLASS WASTE MANAGEMENT

## OVERVIEW

Today in most ASEAN countries glass recycling rates remain low compared to other material types and other countries and regions. Consequently, ASEAN markets are largely net importers of glass. In Vietnam for example, the lower cost of importing glass cullets from China is primarily driven by the higher cost of domestically recycled glass cullets.<sup>11</sup> This is despite the significant demand from glass manufacturing businesses for recycled glass as a raw material in the region. The determining factor remains low collection rates of glass to be reused into recycled glass content.








**O-I is a leading glass producer with manufacturing presence in 3 ASEAN countries to-date (Vietnam, Malaysia, Indonesia) either through wholly-owned plants or joint ventures. A leader in glass recycling, O-I partners with stakeholders across the glass value chain to drive creative solutions to recycling challenges. Globally, O-I bottles and jars contain an average of 38% recycled content, with a goal to reach 50% by 2030.**

<https://www.o-i.com/>

The existing dynamics of glass waste management and current low levels of collection can be broadly attributed to a number of underlying factors that need to be carefully considered when assessing how best to implement an optimal approach to post-consumer waste.

The cost of mobilising glass in general can be lower compared to other material types where there is an efficient collection, sorting and recycling structure. This is typically reflected in lower EPR fees for glass versus other material types like plastic in countries with EPR systems in place. Factors determining at what level the EPR fee is set tend to be driven by a

Recycling rates in ASEAN countries remain low based on current estimates:

	EU average	74%
	USA average	33%
	Singapore	14%
	Malaysia	10%
	Vietnam	15%



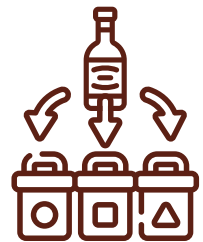
variety of factors such as the cost of the local recycling, processing and collection system, market prices of the recycled materials and a government's recycling goals and regulations. In some ASEAN countries the infrastructure for sorting, collecting and recycling glass bottles remains largely underdeveloped. This leads to a low demand for post-consumer glass collection for recycling in general versus other material types (plastic, aluminium and paper/carton). The absence of infrastructure in turn leads to a higher cost for the collection and recycling of glass waste, posing a challenge for producers looking to support the end-of-life management of their glass packaging.

In Vietnam, only 6% of scrap business owners buy post-consumer glass waste with an even lower demand for coloured versus clear or non-coloured glass.<sup>12</sup> This low demand from scrap business owners does not motivate individual scrap collectors and waste workers to gather and sell glass waste. As a result, most glass waste either ends up in landfills or is treated as fill material for construction sites.



Coloured glass in particular remains a notable challenge in the dynamics of glass waste management. Given that this represents a significant portion of glass for spirits and wines producers, finding sustainable solutions that support a higher rate of recycling of colour glass is important. This includes implementing glass collection methods that encourage early colour separation at source.

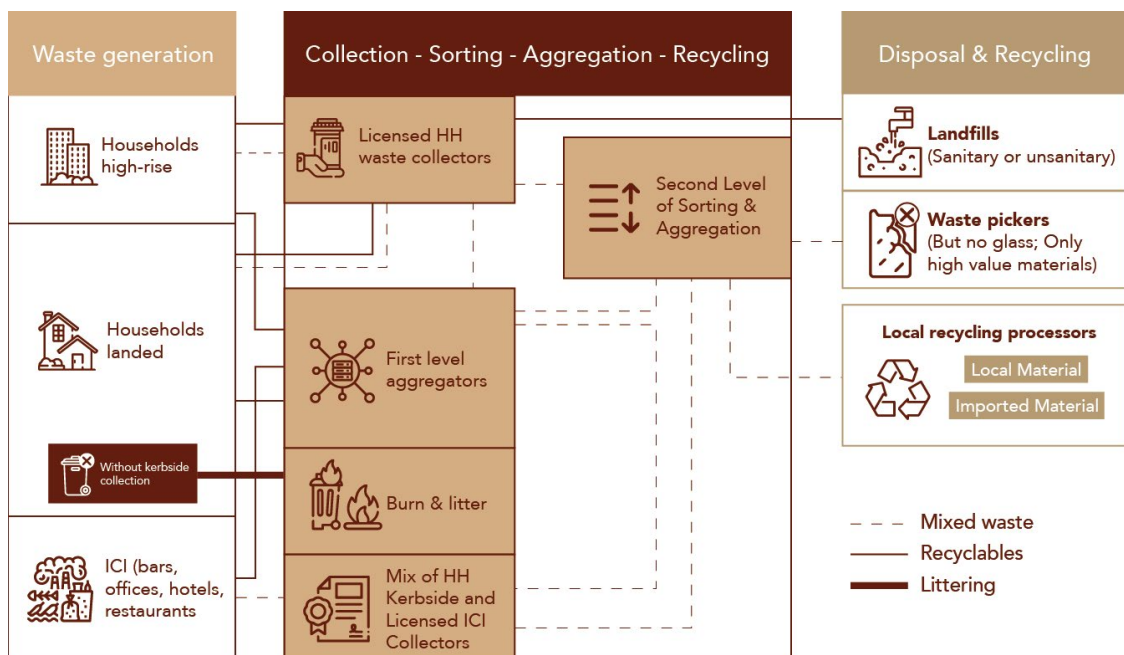
More broadly, glass collection methods need to be adopted to help achieve economies of scale. Pre-aggregation and segregation is key to a cost-effective glass collection system for households as well as companies as demonstrated in countries where glass-waste management is developed. Here, the predominant collecting method is large, specialised drop-off bins stationed in publicly accessible areas. This helps to reduce the complexity and cost of collection and transportation of glass waste for recycling.



In addition to ensuring the right infrastructure is in place to recycle glass waste, understanding the stakeholders in this value chain - starting from generation and ending at disposal and recycling - and the role they play is equally important. Oftentimes, this value chain can be complex with various different routes for used glass that vary depending on the local context.

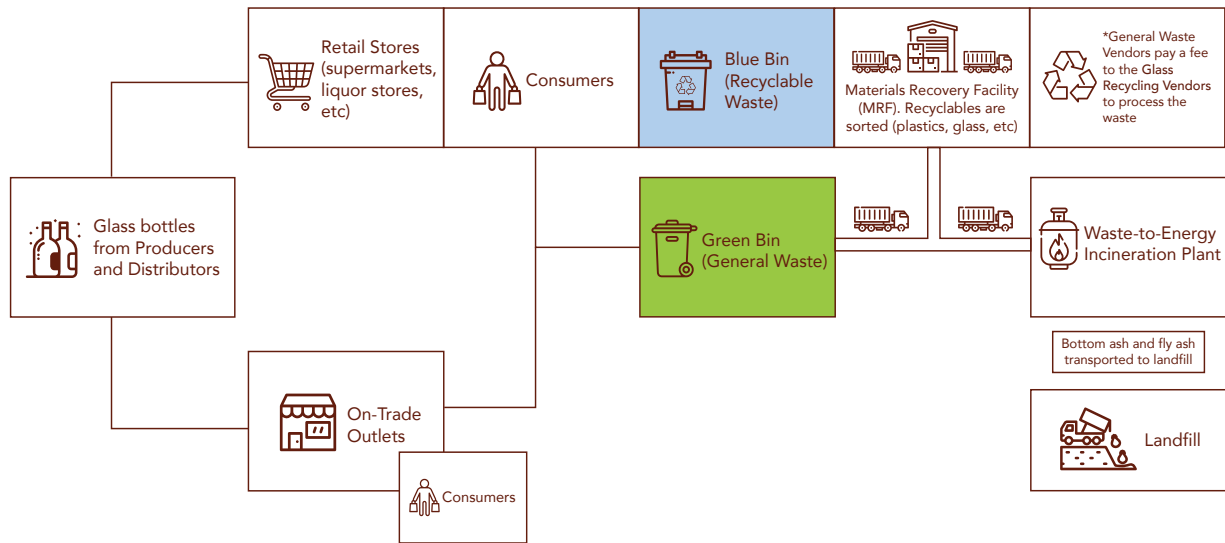


## Malaysia<sup>13</sup>

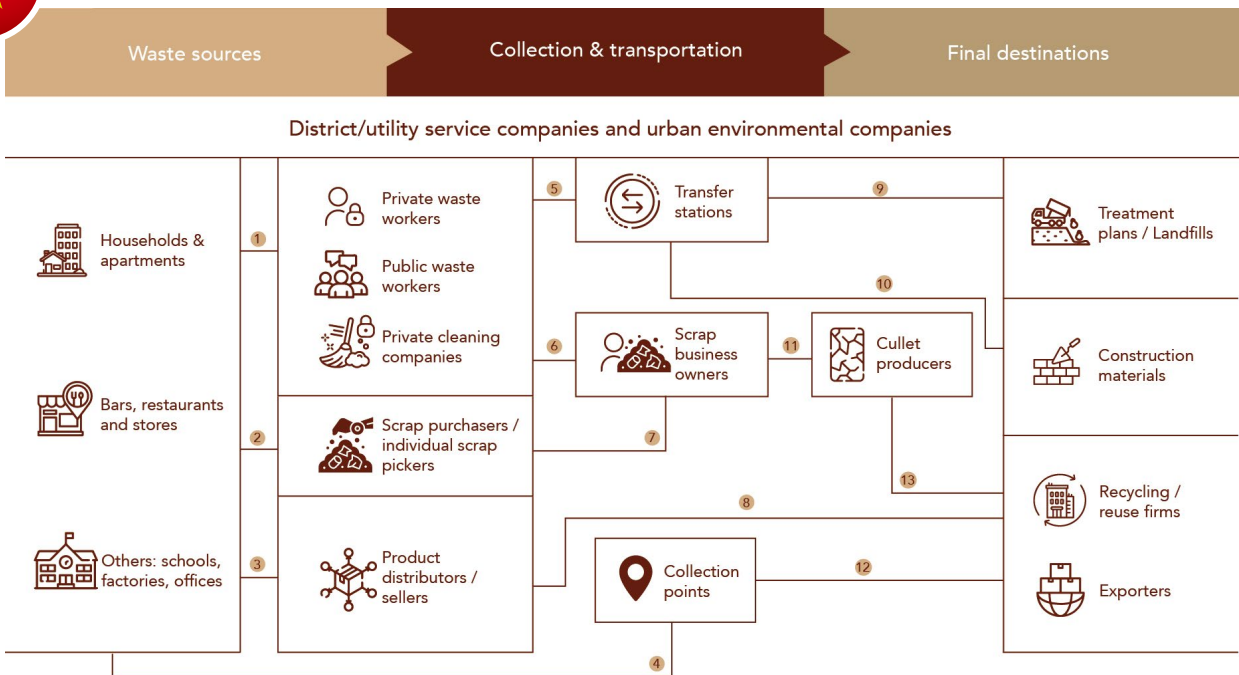




# Singapore<sup>14</sup>



# Vietnam<sup>15</sup>





In this regard, ensuring that the right incentives are in place for all stakeholders to actively participate will provide a net positive benefit for all. This is especially important in markets where the informal sector plays a significant role in the collection of waste for recycling and solutions need to ensure, where possible, a socioeconomic benefit for this group in order to improve their working conditions and income.



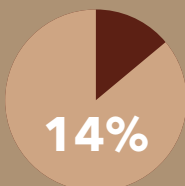
A study on the role of the informal sector in the collection of plastic waste in Bangkok, Thailand, found that the value delivered by informal workers in waste management is approximately THB 500 million compared to the Bangkok Municipality work valued at THB 437 million.<sup>16</sup>



Equally, consumers are key to ensuring glass waste is properly disposed of for recycling, whether it is at household level or in the trade itself at bars and restaurants for example. This is increasingly important in a context of a growing interest and demand for sustainable products from consumers.

Whilst lowering the barriers to recycling waste through improved infrastructure, investing in awareness and education can help increase the level of understanding on the need to recycle and how to go about it, thereby increasing the incentive to do so. This is not only applicable at the consumer level, but can be extended throughout the full value chain of stakeholders.

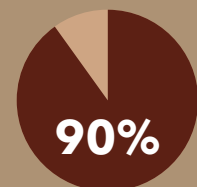
Is it “good for the planet” ranks as third in the relative importance of key purchasing criteria amongst consumers in the Asia Pacific region according to a recent survey conducted by Bain & Company of more than 16,000 consumers across 11 countries.



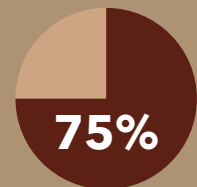
Environmentally and socially conscious consumers represent 14% of all consumers across Asia-Pacific.<sup>17</sup>

The Economy & Environment Partnership for Southeast Asia (EPPSEA) interviewed consumers at household level in Vietnam and found:<sup>18</sup>

More than **90%** were aware of the importance of recycling glass in general



More than **75%** indicated they were willing to supporting glass recycling initiatives





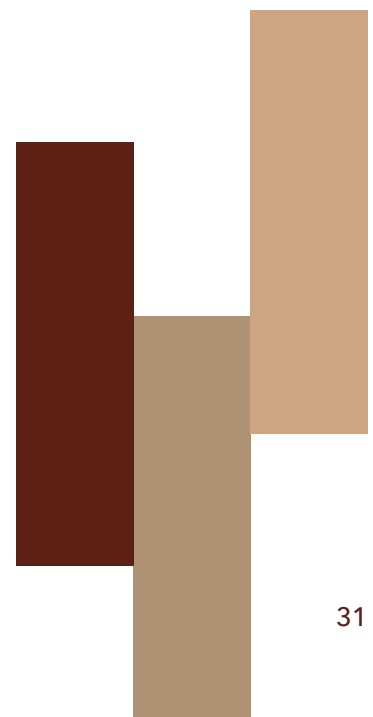
Ultimately though, collaboration and shared responsibility remain a fundamental foundation of any policy or approach looking to address the end-of-life management of post-consumer glass as the scale of the problem remains too large to be addressed by any one stakeholder individually.

As countries in ASEAN either introduce EPR regulations or start to explore the development of regulation for all material types, including glass, spirits and wines producers are starting to pilot glass recycling initiatives in the on-trade and at a household level, to develop approaches that can support an increase in glass recycling rates at a reasonable cost. Starting in Malaysia and Singapore in 2024, drawing from experience of company-level pilots, producers will collectively work with all value chain players to support the testing of solutions that can be passed on to PROs to manage.



As a responsible industry, APISWA members believe we have a role to play in supporting countries to minimise the impact of packaging and waste by scaling up industry-led glass recycling initiatives that can contribute towards an increase in glass recycling rates as a first step.

**“ Piloting industry-led glass recycling initiatives in the on-trade and at household level to test, develop and scale-up cost-effective collection approaches in ASEAN ”**



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