

# SUSTAINABILITY IN THE BREWS

## CASE STUDY OF A COFFEE CHAIN

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## **Executive Summary**

### **Overview**

ZUS Coffee is a tech-driven coffee chain based in Malaysia that is implementing sustainability practices. The team is looking to strengthen its sustainability efforts in all three aspects of Environment, Social and Governance (ESG). The team's focus is aligned with ZUS Coffee's priority to strengthen its environmental efforts. An example of ZUS Coffee's dedication to sustainability is its effort to use rice straws as an eco-friendly alternative to plastic straws, though more areas of sustainability can be tapped into.

### **Methodology**

The team's data collection is done through primary and secondary research. Primary research is conducted through 124 valid customer surveys, 12 interviews with competitors' employees, relevant data given by ZUS Coffee upon the team's request, open discussion with ZUS Coffee's team, and liaising with potential partner organisations. Secondary research includes resources published on the internet such as journals, articles, news and blogs.

### **Issues**

Currently, there is only a sustainability team in ZUS Coffee's management in the headquarters, but there is no specific person in-charge in each outlet. In terms of waste materials, ZUS Coffee's largest waste contributor is Spent Coffee Grounds (SCGs) which either go directly to waste or lack utilisation impact from the current recycling partner. Moreover, the recyclable potential of ZUS Coffee's 100% recyclable cups, unused milk cartons and cardboard boxes is not fully met as these materials are ultimately thrown into the general waste bins. Similarly, the nature of ZUS Coffee's food and beverages is mainly perishable, where expired food will be discarded without a second life. This raises concern as food insecurity is an ongoing issue in Malaysia. In terms of reporting standards, ZUS Coffee currently adopts the Bursa Malaysia framework. However, a global standard reporting framework for sustainability is still absent to resonate with international customers as ZUS Coffee looks to overseas expansion.

### **Recommendations**

Several initiatives have been suggested to address the ESG issues. Before implementing ESG initiatives, the first crucial step is to establish a green team. This is done to promote cross-departmental collaboration and advance sustainability. For environmental initiatives, the team proposed "EcoCycle" and "Grounds to Grow". The "EcoCycle" initiative is to encourage the collection and recycling of packaging waste. Meanwhile, the "Grounds to Grow" initiative emphasises donating SCGs to key community partners and customers to be used as fertilisers. To address the social issues in Malaysia, ZUS Coffee can work with a local food bank to implement weekly donations and biannual food bank pop-ups, as part of a "Sharing Abundance" initiative. Another way to manage excess food is through "Rescue Bite", where ZUS Coffee can partner with local start-ups that focus on selling excess food. For Governance, ZUS Coffee can implement the Global Reporting Initiative (GRI) reporting standards to improve its transparency and sustainability presence amongst global customers in the short term. For the long term, ZUS Coffee can adopt Malaysia's mandated reporting frameworks, such as the Task Force on Climate-

Related Financial Disclosures (TCFD) and the International Sustainability Standards Board (ISSB).



# 1. Introduction

Sustainability has been a vital ethos that shapes corporate decisions. Companies have increasingly prioritised eco-conscious practices that meet both environmental and consumer demands while undertaking a commitment to become eco-friendly (Forbes Expert Panel, 2023). Similarly, Malaysia, together with other 192 world leaders, adopted the 2030 Agenda for Sustainable Development. This is a global commitment towards a more sustainable, resilient and inclusive development, with 17 Sustainable Development Goals (SDGs) and 169 targets (Ministry of Economy, 2021).

To enhance and sustain the competitive edge of companies in Malaysia, stock exchange Bursa Malaysia has mandated public limited and large non-listed companies to publish a sustainability report (Tan, 2024). As such, businesses are committing to ESG in response to the evolving landscape, propelled by a convergence of factors, including increased awareness from consumers and employees, evolving financing requirements and trends, and heightening scrutiny and demands on the supply chain.

## 1.1 Company Background

Since launching in 2019, ZUS Coffee has been on a mission to deliver specialty coffee as a daily necessity for all to enjoy. With the best quality ingredients, high-level coffee brewing technology, and an innovative business model, ZUS Coffee is aiming to revolutionise coffee consumption by making specialty coffee accessible and affordable for everyone. Moreover, ZUS Coffee is committed to making a meaningful impact on the community and the environment. Its initiatives are focused on uplifting those in need, promoting education, and fostering a sense of belonging. By engaging in community events, educational programmes, and humanitarian support, ZUS Coffee strives to create opportunities for growth and connection. Its sustainable practices aim to protect the planet, reflecting its dedication to responsibility and positive change. Through local partnerships and environmental conservation efforts, ZUS Coffee's dedication is driven by a passion for building stronger and more united communities (ZUS Coffee, n.d.-a).

## 1.2 Business Problem

Amidst growing demands for sustainability from key stakeholders, including government entities, investors and consumers, the challenge lies in how ZUS Coffee can navigate this new space. The question that the team aims to address is: *“How can ZUS Coffee effectively integrate sustainability into its business to achieve the greatest impact while aligning with the expectations of consumers and investors within Malaysia’s F&B industry?”*

This report will (1) assess current sustainability practices in the F&B industry, (2) recommend a sustainability reporting standard, and lastly, (3) propose a sustainability strategy fitting for the company. By benchmarking ZUS Coffee against its direct and/or indirect competitors within the F&B industry, the report entails a competition scan in terms of sustainability efforts<sup>1</sup>. Reporting standards practised by global and Malaysian companies would be evaluated before recommendations on the relevant and essential materiality topics are given. The analysis aims to provide a comprehensive overview of the sustainability efforts that ZUS Coffee could practise,

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<sup>1</sup> Sustainability in this context refers to sustainability targets, reporting standards and initiatives.



along with a proposed overarching strategy for adoption over the next 5-10 years. Additionally, both primary and secondary research are conducted to gain a comprehensive understanding of the ESG landscape within the industry in Malaysia.

## 2. ESG Landscape in the F&B Industry

### 2.1 Case Study

#### 2.1.1 Starbucks

Starbucks, a well-known coffee house and roastery, entered the Malaysian market in December 1998 and opened its first store in Kuala Lumpur. Since then, they have expanded to approximately 400 stores spread across many cities in Malaysia. Starbucks has displayed well-implemented global environmental efforts, with Malaysian branches on-boarded with these initiatives. It aims to commit to creating a sustainable future with specific objectives on climate, water, and waste. In the Starbucks Global Impact Report (2024), Starbucks details its initiatives that have contributed to the various stakeholders, including its partners, customers and farmers. This report highlights a few notable practices that would be relevant considering ZUS Coffee's current position in the Malaysian landscape.

#### **Environmental Initiatives.**

##### ***Grounds For Your Garden.***

Since 1995, Starbucks has been offering the “Grounds for Your Garden” programme in participating stores, subject to local regulations. Through this programme, Starbucks collects SCGs and repackages them into the original bags used for shipping the beans in the store itself, thereby enhancing operational efficiency (Starbucks Stories, 2018). Coffee grounds are rich in nitrogen-rich protein, oils and micronutrients, which can act as an alternative compost or fertiliser to enrich plant soil. However, these SCGs can be recycled for other purposes such as fabric dye, exfoliant, insect repellent and much more. Starbucks has released YouTube videos to demonstrate how customers can obtain SCGs from stores and the ways that customers can repurpose them (Leasca, 2024).

##### ***Plastic Initiatives.***

Starbucks is also committed to eliminating the use of plastic straws and has successfully phased out the use of plastic straws in all its stores around the globe by late 2021. It has since transitioned to polyhydroxyalkanoate (PHA) straws which are derived from canola oil, making them completely plastic-free and biodegradable. PHA straws are as durable as plastic straws, and they do not get soggy in both hot and cold beverages. In addition to offering a more sustainable straw, Starbucks in Malaysia also imposes a charge of RM1 for customers requesting a straw. Starbucks is adopting “strawless lids” as part of its ongoing commitment to sustainability, encouraging customers to engage in this eco-friendly initiative to further reduce the need and demand for straws (mystarbucks, 2024).

##### ***Bring Your Own Cup.***

The “Bring Your Own Cup” programme offers financial incentives and promotions to incentivise customers in participating regions to bring their cups or mugs when making a purchase. Starbucks has managed to pilot and expand this programme in Africa, Asia-Pacific, Europe, Middle East and North America as of 2022. In Malaysian outlets, customers can enjoy an RM2 discount on every purchase when they bring their own Starbucks reusable cups, and on special occasions, customers may receive a 50% discount on any handcrafted beverages with the

same initiative (Starbucks Malaysia, 2024). In early 2024, Starbucks expanded the programme to include purchases made through drive-throughs and mobile orders in the United States and Canada, allowing customers to use personal reusable cups, regardless of brand. Customers can inform baristas of their intention to use their own cups at the drive-through pickup window, while those placing orders online can indicate their preference in the Starbucks app and present their cups at the pickup counter (Starbucks Stories, 2024). However, at the expense of sustainability, this new update has raised some concerns for Starbucks workers and baristas as there will be changes to the normal operating processes and procedures, impacting efficiency. Although Starbucks asserts that this new initiative has minimal impact on operational efficiency, it is noteworthy that currently only 1% of their orders are made using personal cups (Bratton, 2024).

### ***Borrow A Cup.***

Besides the “Bring Your Own Cup” programme, Starbucks has also launched and piloted its “Borrow a Cup” programme in various regions, including Singapore and Taiwan (Starbucks Stories, 2022a; Starbucks Stories 2022b). Under this program, customers are not required to purchase a Starbucks cup or bring their own reusable cups. Instead, they can choose to borrow reusable cups when making purchases and return these cups at a later date. The exact terms and conditions for this programme vary in both Singapore and Taiwan. For instance, in Taiwan, customers are required to pay a RM6.80 refundable deposit per cup, while Singapore stores require no up-front fee but a late return fee equivalent to RM13 is chargeable on the mobile app after 14 days. Starbucks in Singapore and Taiwan each work with their respective vendors in sourcing reusable cups, including professionally washing them upon return by customers. In the case of Starbucks Singapore (2022a), each reusable cup may be reused up to 30 times.

### **Social Initiatives.**

#### ***Starbucks Foundation – Global Initiative.***

The Starbucks Foundation aims to strengthen communities globally by promoting resilience and prosperity, particularly in disaster areas. It supports non-profits that benefit coffee-growing regions, Starbucks’ hometown of Seattle, and neighbourhoods where Starbucks operates. Key initiatives include improving access to water, sanitation, and economic opportunities in coffee, tea, and cocoa-growing communities. Through its Neighbourhood and Global Community Impact Grants, the Foundation encourages local Starbucks partners to nominate charities for grants. It also funds youth programmes focused on diversity, mentorship and emotional health. In times of disaster, the Foundation provides immediate relief and invests in long-term recovery and preparedness efforts. In the Financial Year (FY) 2023, it raised US\$24 million in grants awarded (Starbucks Corporation, 2024).

#### ***Community Support – Global Initiative.***

Starbucks plays an active role in supporting local communities through its “Neighbourhood Grants Programme”, which is part of the broader social mission of the Starbucks Foundation. Since its launch in 2019, this initiative has provided over US\$15 million in grants to more than 400 grassroots and community-based non-profits across the US and globally, focusing on addressing key community challenges, including racial inequality, youth engagement and social justice issues (Tan, 2024).

In addition, Starbucks also partners with local, community-based organisations that have a deep understanding of and direct involvement with the needs of the communities they serve. This approach ensures that resources are allocated efficiently, making a tangible impact on issues like housing insecurity, youth education, and access to essential services. This extends to the local context where Starbucks Malaysia has honoured two non-governmental organisations (NGOs), Hope Worldwide and REACH Cameron Highland, in managing three major community projects (Starbucks Malaysia, n.d.-a). Starbucks Malaysia began its collaboration in 2005 with Hope Worldwide by building a Free Pediatric Clinic to provide medical aid in a low-cost residential area in the northern region of Peninsular Malaysia. Starbucks' partners conduct site visits to lend a helping hand on patient registration and arrange stock of medicines, with proper guidance by professionals (Starbucks Malaysia, n.d.-b).

To date, Starbucks Malaysia has partnered with HOPE Worldwide Malaysia to support underprivileged communities through various initiatives (Teh, 2022). These include the Orang Asli Outreach Programme, where Starbucks volunteers travel to remote areas to provide aid, and the Food Distribution Programme at the Sentul Free Clinic, offering support to low-income families. Starbucks has also participated in events like the Nationwide Caroling Tour and community activities aimed at spreading volunteerism and goodwill. This collaboration highlights Starbucks' commitment to community outreach and social responsibility.

#### ***Diversity and Inclusion – Global Initiative.***

Starbucks is deeply committed to fostering a diverse and inclusive workforce. In the US, the company set ambitious targets to increase the representation of Black, Indigenous and People of Colour (BIPOC) across its corporate and retail positions by 2025. Specifically, it aims for 30% BIPOC representation in corporate roles and 40% in retail and manufacturing roles (Starbucks Corporation, 2024).

Furthermore, Starbucks provides mentorship opportunities to underrepresented groups, giving employees equal access to senior leaders and creating pathways to leadership roles within the company. All Starbucks leaders are required to undergo anti-bias training to ensure they are equipped to manage teams inclusively and with cultural sensitivity. This training focuses on eliminating unconscious biases and promoting equity within the workplace.

#### ***Signing Stores – Malaysia.***

Since 2016, Starbucks Malaysia has launched three Signing Stores, with the latest in Borneo, providing an inclusive environment for the deaf and hard of hearing (Starbucks Stories, 2023). The store promotes accessibility by employing deaf baristas and staff, enhancing community engagement, and raising awareness about sign language. Starbucks Malaysia partners with the Sarawak Society for the Deaf (SSD) to offer Malaysian Sign Language interpretation and host activities that support the deaf and hard-of-hearing community, creating a platform for learning, networking and sharing ideas.

The Signing Store is designed to be inclusive, with spaces for community workshops and features artwork by Deaf artists. Notably, the third Signing Store showcases a mural by deaf

artist Madang Ding Anyi from Sarawak, highlighting the flora of Borneo and the region's coffee-growing culture. To celebrate the launch, Starbucks Malaysia allowed customers to contribute to the cause by offering an exclusive range of Signing Store merchandise, such as keychains, tote bags, ceramic mugs, stainless steel tumblers, plastic cold cups, and limited-edition Starbucks Card (Starbucks Stories, 2023).



**Figure 1.** Exclusive merchandise at the signing store to celebrate the works of deaf partners

### ***Connecting Communities – Malaysia.***

Beginning in 2013, Starbucks Malaysia took up two projects to engage and contribute to local community groups. Starbucks' first destination was Kampung Lubuk Jaya, a rural village located on the outskirts of Kuala Selangor. The organisation purchased a sizeable number of bananas directly from the village to be used in banana-based food products at local stores, such as muffins, biscotti, Danish pastries and pies. Proceeds from these banana-based items were then used to build a Community Computer Centre for the children of the village. The second project featured a partnership with Craft CT 01 Enterprise located in Pahang, the East Coast of Malaysia. Starbucks tapped on the local expertise, working with Mengkuang to produce handwoven items like tote bags and wallets. This helped to launch the organisation's aspiration to start a local Mengkuang craft-based business (Asia Responsible Enterprise Awards, n.d.).

#### ***2.1.2 Luckin Coffee***

Luckin Coffee, founded in China in 2017, is one of the fastest-growing coffee chains globally, known for its tech-driven approach and focus on delivery and convenience. It gained widespread popularity in China for offering high-quality coffee at competitive prices and leveraging its mobile application for orders and promotions (Chiang, 2023). While Luckin has established its market position in China, it plans to expand operations within Southeast Asian (SEA) markets from 4Q24 to 1Q25. In the first half of 2024, Luckin engaged with BJ Food, Starbucks' operator in Malaysia, to explore a joint venture for entering the Malaysian market (Pandaily, 2024).

This report's analysis of Luckin Coffee reveals limited transparency regarding their ESG efforts, particularly at the retail level. While most environmental initiatives focus on production processes

within China, there is minimal emphasis on social responsibility or community-driven initiatives at the store level. There is a lack of initiatives on corporate social responsibility, such as employee well-being, community engagement, or diversity and inclusion. This imbalance can indicate a narrow focus on sustainability measures tied to their operations rather than a holistic approach to ESG. It may also reflect a strategic decision to address regulatory or cost-related pressures tied to environmental factors while overlooking the long-term reputational benefits and community impact that come from social initiatives.

### **Environmental Initiatives.**

#### ***Sustainable Coffee Sourcing and Production.***

Luckin Coffee has taken steps to ensure that its coffee sourcing aligns with sustainability principles. Most recently, its coffee roasting plant in Jiangsu, China, began operations in April 2024, integrating environmental-friendly technologies like exhaust air cleaning and smoke elimination systems. With a total planned investment of US\$120 million and an annual roasting capacity of 30,000 tons, it is the largest coffee roasting plant in China to date. By harnessing intelligent manufacturing and automation, Luckin's new plant strengthens vertical integration within the coffee supply chain. This approach enhances productivity through technology and supports the modernisation of China's coffee industry, setting a new standard for sustainable and high-quality development (Luckin Coffee, 2024).

In addition, Luckin Coffee operates a green coffee bean processing plant in Yunnan Province, which employs cutting-edge water treatment and energy-efficient drying technologies (Centurium Capital, 2024). The plant utilises zero wastewater discharge technology and air-source heat pumps, significantly reducing environmental impact during the coffee bean processing phase. These facilities are part of Luckin Coffee's broader effort to enhance its control over the entire coffee production process while maintaining high environmental standards.

Overall, Luckin Coffee emphasises sustainability within its supply chain by adopting a circular economy approach, particularly in coffee production. This includes employing eco-friendly methods for coffee waste management, such as reusing coffee grounds in agricultural applications. By finding secondary uses for coffee by-products, the company reduces waste and contributes to a more sustainable lifecycle for its products.

#### ***Operational Waste Management through Digitalisation.***

Luckin Coffee's efforts to reduce waste are evident in its operations, in which it focuses on minimising single-use plastics and promoting recyclable packaging. The company leverages digital ordering systems that reduce the need for paper receipts and contribute to less physical waste across its retail network. This cashier-less and app-driven ordering system, used in conjunction with smart stores such as delivery kitchens and pick-up stores, also helps reduce energy consumption by optimising delivery logistics and reducing the need for large physical retail spaces (Ferrer, 2020).



### ***Carbon Management and Practices.***

Luckin Coffee formed a Climate Change and Carbon Neutrality Subcommittee in April 2023 under the guidance of the co-chairman of the Sustainable Development Committee. This working group was created to oversee the company's greenhouse gas emissions data and carbon strategy, ensuring a more structured approach to carbon management (Luckin Coffee, 2023). In August 2023, Luckin Coffee completed its first company-wide carbon inventory verification, which covered emissions from its office areas, factories, and stores. This initiative laid the groundwork for setting future carbon reduction targets and included the calculation, exploration, and verification of the carbon footprint of selected products.

### ***Social Initiatives.***

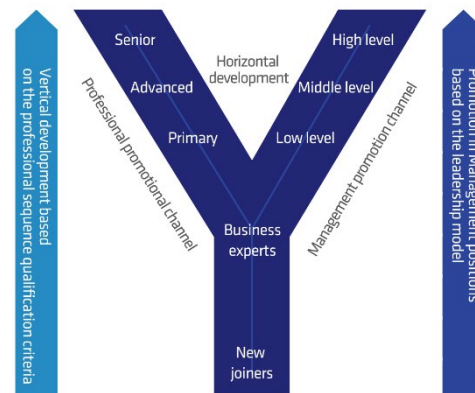
#### ***Employee Training.***

Luckin Coffee developed three levels of training courses of different purposes and was able to achieve a 100% coverage ratio for all its offline and online training below as of June 2022 (Luckin Coffee, n.d.).

1. Mandatory Orientation Training – This is a mandatory training for new joiners and recruits that includes off-site camps and on-the-job training designed to help them adapt and integrate into the Luckin team culture. Employees will get to learn more about the company's corporate culture, day-to-day operations, as well as coffee culture.
2. Professional Skill Building – This course offers a more specialised form of training for employees in different positions with different skill sets. Luckin Coffee offers specialised courses for products, marketing, operations and technology that can act as refreshers or value adders. It also offers a Coffee Master Raiser programme designed to stimulate employees' passion for coffee while enhancing their understanding of coffee.
3. Leadership Development – Luckin Coffee provides training not only for its operational team but also for its management team. Topics include competence plans and succession plans revolving around strategic thinking and planning conducted by external industry consultants.

### ***Career Advancement.***

Luckin utilises a unique “Y” shaped or dual-track career advancement progression for its employees (Figure 2). This unique dual-track system offers an inclusive career progression pathway, accommodating individuals with diverse goals and motivations. The first path, the management promotional channel, is designed to suit individuals who would like to push for organisational changes and strategies in the future by being part of the lower-level to higher-level management team. The second path, the professional promotional channel, is designed for individuals who would like to advance from



**Figure 2.** Y-shape – Dual-Track Career Advancement Progression



primary, advanced, to senior positions based on the qualification criteria.

Additionally, Luckin Coffee also offers a transparent development path with an emphasis on efficiency, where employees can progress from barista to deputy store manager to store manager in just six months. This system has proved to be quite effective as 75% of Luckin’s store managers were internally promoted.

## 2.2 Competition Landscape Assessment

To gain a holistic understanding, our team conducted 12 primary interviews and did desktop research on five of ZUS Coffee’s competitors, compiling them altogether in a map as shown in Figure 3. Here, *Grab & Go* chains refer to coffee shops with operating models with minimal seats in place, allowing people to order and take the beverages conveniently on the go. Primary interviews are done through phone interviews, video-call interviews and direct face-to-face interviews with most of the interviewees of manager profiles, while a small proportion are working baristas.



Figure 3. List of Interviewed and Researched Companies

From the interviews, the team observed that competitors, in general, emphasise implementing initiatives to address **Waste** and **Raw Materials** issues, further elaborated in section 2.2.1 and section 2.2.2. However, they do have a mixed outlook about customers’ views on sustainability. Five interviewee profiles noted that integrating sustainability leaves either a good impression about their cafes in customers’ minds or cites that sustainability is “*already the norm*” for cafes, in which one of them states that “*we think that customers feel good when they are using paper straws instead of plastic ones*”.

Contrastingly, three competitors denote a more pessimistic outlook and expressed that there is “*generally a low interest in sustainability*” and another one stated that the café has not garnered any feedback about their views on sustainability. This corroborates our findings on how sustainability practices amongst the F&B industry in Malaysia still remain fragmented though progressive, with relatively lower levels of interest as compared to other countries such as Singapore. As the interviewees are employees, the answers given might lean towards the company’s favour.

### 2.2.1 Waste

According to GRI Standards, the “Waste” Pillar here is defined as any initiative related to minimising waste-related impacts, including minimising or diverting waste (Global Reporting Initiative, n.d.-a). Nine out of 12 competitors have started initiatives related to minimising waste in their retail value chain, first centred around collaborating with waste management partnerships for food-waste and spent coffee grounds recycling, or even adopting best practices such as minimising cakes and pastries displayed according to forecasted demand.

However, a pertinent challenge pointed out by a café owner was the lack of community, resources, and partnerships available for food-waste management in Malaysia, making him feel like he “*was doing it alone*”. This corroborates how there were no initiatives observed that involved collaborating with other supply-chain partners yet. This further highlights how minimising waste for the F&B industry in Malaysia is still very individualistic and café-specific, hence setting up higher barriers for cafes to set up new waste initiatives.

One interesting initiative gleaned from this interview was from Blitz and Colony Café, at which they repurpose left-over cakes and pastries into bread butter puddings resold to customers. The interviewee highlights that this often sparks conversations with customers, asking about the unusual appearance of the bread butter puddings. This allows opportunities for the barista to share their in-house food waste management system with customers, raising awareness of their sustainability efforts and increasing customer engagement.

### 2.2.2 Raw Materials

According to GRI Standards, the “Raw Materials” Pillar is defined as managing raw material inputs related to packaging materials and its recycling efforts (Global Reporting Initiative, n.d.-a). All 12 competitors interviewed had initiatives to manage plastic waste, such as using biodegradable straws, going strawless, and sipping from lids directly. This highlights that rethinking single-use plastic in packaging is the new norm for the F&B industry. Some competitors have also tried diverse and creative ways to recycle SCGs by repurposing them as agricultural inputs, furniture materials, dye colouring and much more.

## 2.3 Key Insights from Customer Survey

An online survey is conducted to gain insights on people’s perceptions towards sustainability in the F&B industry. The survey is targeted towards people in Southeast Asia countries such as Indonesia, Malaysia and Singapore, who might or might not be familiar with ESG. Sampling methods such as **convenience sampling** through the team’s connections and **stratified sampling** by posting on sustainability-related discussion forums are used to sample the population. In total, there are 197 respondents, but only 124 are considered due to validity and the completeness of the answers.

### 2.3.1 Sustainability in General

#### Respondents’ View of Sustainability.

In terms of sustainability in the F&B industry, the top three things that come to customers’ minds are sustainable practices (33%), reusable materials (24%) and specific F&B brands

(15%) (Appendix A1). These top three initiatives include bringing reusable lunch boxes or containers, imposing charges for single-use plastic bags, minimising single-use plastic, and ceasing the usage of straws. Good and bad examples of various restaurants, cafés, and fast-moving consumer goods (FMCG) companies are also mentioned. For instance, McDonald's decision to stop distributing straws in their outlets is an example of a positive sustainability initiative, according to one of the respondents.

70.8% of respondents indicated waste as the most pressing issue, which corroborates with the team's direct competitor interviews in pinpointing waste as a prevalent initiative. Among the 70.8%, 52 respondents mentioned food waste, 38 respondents acknowledged plastic waste, while a few others cited styrofoam and paper cups. The numbers are not mutually exclusive as some respondents mentioned multiple types of waste. The cost of implementing sustainable practices comes second at 15%. This is then followed by consumer behaviour or their reluctance to change their habits and adopt sustainability practices with a percentage of 8.3% (Appendix A2).

#### ***Misalignment between action and perception.***

The team identified three customer profiles based on the survey results. The first group consists of *eco-conscious* customers who prioritise sustainable practices over other factors. The second group is more *neutral*, placing importance on sustainability but also factoring in menu options, convenience and price. The third group is the *traditional group* who places less emphasis on sustainability and focuses more on other aspects when making dining decisions. Despite these differing profiles, the survey revealed that sustainability is not a “deal-breaker” in purchasing decisions for most customers. However, there is growing interest in sustainability, with respondents expressing a preference for both businesses and individuals to adopt sustainable practices. This is supported by a strong correlation between openness to learning about sustainability and the desire to incorporate such practices into daily life, as seen in the responses from 124 participants (Appendix A3). These findings ratify the team's direct competitor interviews, highlighting the mixed perceptions in the ESG landscape.

### **2.3.2 Environment, Social, and Governance (ESG)**

The survey results align well with ZUS Coffee's priorities, with environment first, followed by social and governance at second and third place (Appendix A4). Since governance mainly deals with the internal management of the company, it may be less relevant to the eyes of customers. Therefore, the customer surveys focus on the two pillars of ESG, which are Environment and Social, whilst recommendations for Governance are provided in Section 5 of the report.

#### **Environment (E).**

Among the predefined selections, the top three environmental issues include waste, identified by 83 respondents; raw materials, noted by 79 respondents; and sustainable farming, recognised by 43 respondents (Appendix A5). From a customer's standpoint, the most impactful environmental initiative that can be done by a coffee shop is to reduce waste. This makes up 46%, with the most common answer being minimising plastic waste. Subsequently, sustainable alternatives accounted for 20%, which involved switching to eco-friendly packaging options like paper cups (Appendix A6).

### **Social (S).**

The survey indicates that the key social issues revolve around adequate training and education for employees, community support and diversity (Appendix A7). Community collaboration was viewed by customers to be the most impactful social initiative (28%), followed by ethical labour and fair hiring practices, each garnering 20% (Appendix A8). Pertaining to community impact, the top suggestions involve donating food to reduce food waste, organising community clean-up efforts, and hosting a family day. Ethical labour includes work-life balance, the absence of child labour, fair compensation, and a non-toxic work environment. Fair hiring practices prioritise pre-work elements such as diversity, equality, inclusion, and ensuring there is no discrimination.

## **2.4 Main Takeaways from Competitors and Customers**

From the analysis in Section 2.2 and Section 2.3, the results suggest that tackling Waste and Raw Materials (e.g., plastic packaging) issues are most prevalent among competitors. This simultaneously overlaps with customers' emphasis on this topic. The results suggest that ESG practices within Malaysia, though growing, remain fragmented, which poses challenges for businesses like ZUS Coffee in implementing their ESG efforts.

Having grasped an overarching view of both competitors' and customers' perception of sustainability in the F&B industry, the next section explores ESG recommendations for ZUS Coffee, particularly zooming in on their waste and raw materials management.

### 3. Environmental Initiatives

#### 3.1 Overview of ZUS Coffee's Waste Profile

ZUS Coffee's value chain is illustrated in Figure 4. In this context, *food loss* refers to food that is lost before reaching ZUS Coffee's warehouses, while *food waste* relates to waste generated after it reaches ZUS Coffee's warehouses. *Food waste* is further classified into two categories: **edible-sourced food waste**, such as leftover cakes, pastries, and spent coffee grounds, and **non-edible-sourced food waste**, including milk cartons, cardboard boxes and cups. This segregation will allow the team to better recommend a more targeted strategy that ZUS Coffee could adopt to develop an effective waste management solution.



Figure 4. ZUS Coffee's Value Chain

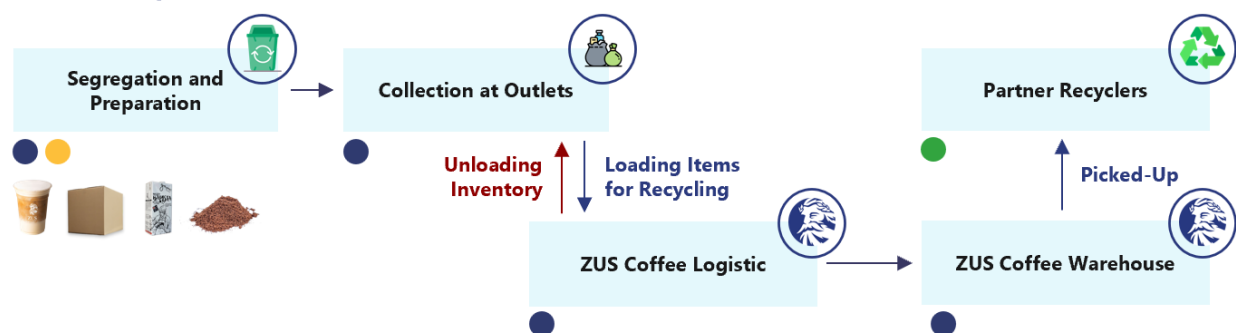
#### 3.2 End-to-End Recycling Process

ZUS Coffee can manage waste from its online and offline channels in two ways (Figure 5). Externally, waste disposal – mainly PET cups – hinges on customers' involvement in the recycling process. ZUS Coffee's pilot project with Riicycle in the Penang area is an example of the external value chain where customers can recycle five plastic cups at its collection points to get 10% off their purchase at ZUS Coffee (Riicycle, n.d.). Similar initiatives could be considered in other areas with higher online purchases.

On the other hand, waste that is generated internally would first be segregated and prepared for collection, involving employees and/or customers in the process. All items designated for recycling will then be quantified by in-store employees before the collection. Afterward, ZUS Coffee's logistics will unload its supplies and, in exchange, collect the items for recycling from the outlets before transporting them back to the warehouse on a regular basis. By overlapping the time of collection of the waste and supply delivery, ZUS Coffee would be able to minimise its operational costs. Recycling partners will be able to collect directly from the ZUS Coffee warehouse, whereby the collection operator from the recycling partners will be required to sign confirmation of receipt. This way recycled items could be easily tracked and managed.

This report will primarily focus on managing internal waste, including **packaging waste** and **SCGs**, as these contribute significantly to the company's overall waste generation.

#### Internal Disposal Value Chain (In-store)



#### External Disposal Value Chain (Outside store)

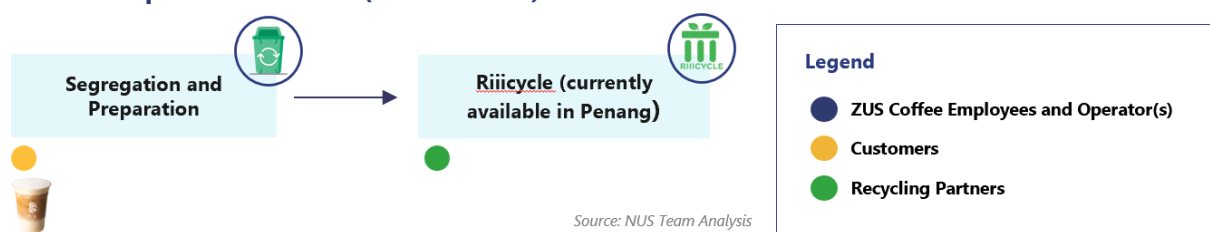


Figure 5. Recycling Workflow

### 3.3 Packaging Waste

#### 3.3.1 Packaging Waste at ZUS Coffee

Packaging waste in ZUS Coffee includes straws, PET cups, cup lids, cardboard boxes, cup holders and milk cartons. The team did an on-the-ground observation through store visits at six Johor Bahru locations (Appendix B1), which are KSL City Mall, Larkin Jaya, Kebun Teh, Tampoi Susur, Mount Austin, and Aeon Mall Tebrau City. Through the observations, the team noted that ZUS Coffee has not adopted a standardised recycling process, as milk cartons were still disposed in general waste bins. Moreover, recycling bins for PET cups were absent, and there was a lack of proper recycling or repurposing of cardboard boxes. This report will cover **recyclable packaging waste** such as cardboard boxes, milk cartons, and PET cups, which the company has not fully addressed.

#### 3.3.2 Comparative Analysis of Recycling Practices by Country

##### Malaysia.

In 2019, Malaysia disposed of 1.4 million tonnes of plastics waste, of which only 24% (0.32 million tonnes) was recycled. Of the recycled plastic, 32% came from PET packaging, 30% was composed of PP materials, and the remainder was made up of HDPE and LDPE plastics (KASA, 2021). In 2022, the overall recycling rate in Malaysia was only around 31%, which is significantly lower than in Singapore and South Korea (ITA, 2022). In the latter two countries, material-specific recycling data are readily available. In contrast, Malaysia lacks detailed information on the recycling of items such as cardboard boxes and milk cartons. Despite an improvement of the recycling rate with the expansion of recycling facilities and initiatives over

the last five years up till 2023, the total volume of plastic and general waste in Malaysia continues to rise, inhibiting the effectiveness of the recycling effort (The Star, 2023).

### **Wales.**

In June 2024, Wales was ranked second in the world in terms of its recycling efforts (Bryer, 2024). The significant surge in its success is credited to its waste strategy from 2010, “Towards Zero Waste”, in which escalating recycling targets are set for local authorities in Wales, whereby financial penalties are imposed if targets were missed (Amanor-Wilks, 2024). The effect trickles down to the daily lives of households as recycling collection services largely operates on a “kerbside sort” scheme where residents sort their waste and place their recyclable items into separate containers for different types of materials, such as cardboard, paper, cans and tins, glass, plastic and food waste.

As outlined in its strategy, the Welsh Government’s preferred kerbside-sort method is used by most local authorities (Cardiff Caerdydd, 2022). Each district varies in its logistical options but residential streets in Wales would commonly be lined with containers (Appendix B2) and sacks of separated materials (Aitken, 2024). Compared to generic recycling bins, this has by far been the most effective as the detailed sorting and cleaning prior to collection lowers costs, prevents contamination and ensures that 99.97% of collected items get recycled (Wastesavers, 2018). Similarly, businesses have been legally mandated to separate recyclable materials following the same categorising procedures as most households. Workplaces are recommended to implement a bin system (Appendix B3) where bins will be clearly labelled to signpost the suitable recycling site for each item (SL Recycling, 2024).

### **Japan.**

With a direction of circular economy and net-zero Greenhouse Gasses (GHG) emissions towards 2050, Japan established 3Rs (Reduce, Reuse, Recycle) + Renewable approach to ensure a widespread practice of the 3Rs and encourage replacement by renewable resources (MOE Japan, 2023). One of its strategies includes the sophistication of recycling efforts by segregating recycling processes for different waste types. PET plastic waste, for instance, is handed to a list of government approved contractors with the capabilities to transform them into a range of recycled materials with cleaning process done at source by consumers (Noda, 2023; The Japan Containers and Packaging Recycling Association, n.d.; Appendix B4). This focus on proper waste management is prominent in Japan's context, where the scarcity of public garbage bins serves as both a security measure and an indication of the cultural aversion to littering.

The 1995 sarin gas attacks prompted the decision to reduce the number of garbage bins nationwide, forcing residents to adopt a thorough waste disposal system where collection days vary based on types of waste and region, as shown in Appendix B5 (Richarz, 2019). For instance, PET and non-PET bottles and cans would be collected every Wednesday. Despite the country’s low overall recycling rate in 2022 with a percentage of 19.6%, Japan has a high plastic recycling rate at 87% (Klein, 2024a; Klein, 2024b).



### **South Korea.**

In 2022, 86.8% of waste disposed in South Korea was recycled, with only 13.2% was sent to landfill, incinerated, or processed through alternative disposal methods (Shin & UNOSD, n.d.). These results are linked to waste management policies, including the Extended Producer Responsibility (EPR) policy for packaging. Additionally, the Volume-Based Waste Fee (VBWF) policy holds consumers accountable by requiring them to purchase designated trash bags for specific types of waste (Ro, 2021). The clear roles and responsibilities of stakeholders within the value chain, and efforts in prevention of excessive packaging through self-verification platform and consultation for proper packaging, allows operations to run efficiently and productively towards the nation's Circular Economy Society goal (Bünemann et al., 2020; KEC, 2024).

Furthermore, waste segregation and preparation for recycling are done at the source. This means individuals are required to sort their waste into distinct categories and prepare them for recycling, including rinsing, drying, and flattening, before disposal in public recycling bins (ENKOR, 2024; Ro, 2021). As more people used public bins to evade fees under the VBWF system, trash cans were gradually removed from the streets (Da-hyun, 2024). Nevertheless, South Korea aims to tackle its plastic waste by reducing its production by 50% and recycling 70% of it by 2030 (Belcher, 2021).

### **3.3.3 EcoCycle Initiative**

Following the recycling process outlined in section 3.2, this section will provide a further explanation of the standard operational procedures (SOPs) for recycling the distinct type of packaging waste as well as the Key Performance Indicators (KPIs) that ZUS Coffee could achieve. The recycling process of packaging waste initiative will be referred to as "EcoCycle".

#### **Standard Operating Procedures.**

##### **Cardboard boxes.**

Cardboard boxes are primarily generated from the boxes used to hold packs of milk cartons and from other store supplies, including packed coffee grounds and certain food items. These are typically generic and acceptable at most recycling centres. Furthermore, the team has found that the most cost-effective method for cardboard box collection would be to reuse some of the larger boxes. This is because the volume of cardboard box waste from each store would not be too significant to warrant for cages that are used in malls or supermarkets (Appendix B6).

When recycling cardboard boxes, it is important to remove any adhesive tape prior to dismantling the box. The tape should be disposed of in the general bin, while the cardboard itself should be flattened and stacked before being placed in open containers or bundled and later counted for collection (ZWM, n.d.). This saves space, keeps the boxes organised, and ensures they are easier to transport for collection. By grouping the flattened boxes, the risk of them getting mixed up with other materials is reduced, and collection efficiency improves since recycling partners can handle compact, sorted materials more effectively. It should be noted that wet cardboard must be excluded from the stack as moisture makes it harder to recycle

(Priory Direct, 2024). Besides that, ZUS Coffee could potentially work with existing or new suppliers by providing them with the cardboard prepared for the manufacturing of cup holders.

### **Milk Cartons.**

At ZUS Coffee, a variety of milk brands have been noted, including *Outside* oatmilk, *FreeNow* coconut milk, and *UHT Yarra* farm milk. Most of the cartons from these brands utilise Tetra Pak packaging and are made from FSC-certified materials. In general, milk carton packages can easily be recycled in three simple steps. Firstly, fully empty the milk carton and rinse it. Secondly, flatten the package. Lastly, place the whole package, including the cap, into the recycling bin (Tetra Pak, n.d.). Official Tetra Pak packaging recycling partners in Malaysia include SHA Paper Mill Sdn Bhd and SHA Hup Aik Sdn Bhd, both of which ZUS Coffee has previously collaborated with. Additionally, ZUS Coffee's employees would need to keep track of the quantity of milk cartons that are collected for recycling to analyse the trend and impact.

As the emptied milk cartons are currently discarded with other generic waste by the baristas, ZUS Coffee could provide separate bags specifically for the collection of clean and flattened Tetra Pak packaging. A colour-coded bag could be placed at the barista station to allow for ease of collection and to avoid a mix-up with the generic waste.

### **PET Cups.**

Based on observation at the Johor Bahru outlets, only one disposal bin is currently provided at each store, with all waste classified as general waste. In July 2024, its initiative with Riiicycle in Penang resulted in 137 cups being collected and recycled (ZUS Coffee, 2024). Considering that there are 41 ZUS Coffee outlets in Penang and the daily number of customers in each outlet is approximately 59, ZUS Coffee is still behind in its sustainability goal (ZUS Coffee, 2024). To improve waste management practices, ZUS Coffee could provide a separate bin for its PET cups and involve customers in the segregation process.

Customers would be encouraged to remove the cup lids and straws and put them into the general waste bin; and pour the liquid into the sink while placing the emptied cup in the recycling bin. A printed guideline next to the waste bin could be displayed to ensure the clarity of disposal. ZUS Coffee's employees would then be responsible for rinsing, drying, and stacking the cups for collection on the stipulated day, while also documenting the quantity of cups. This initiative could first be piloted at ZUS Coffee's shophouse outlets as there is more space availability and less operational limitations on rinsing and drying of the PET cups for collections. There are also more customers staying back at the store, unlike those in ZUS Coffee's *grab & go* and *hybrid café* chains.

### **Performance Indicators.**

#### **Recycling Rate.**

Aligning with Malaysia's target to achieve a 40% recycling rate of household waste by 2025 under the Twelfth Malaysia Plan 2021-2025 (EPU, 2021), ZUS Coffee can use this as a KPI benchmark, ensuring that at least 40% of packaging waste generated from each outlet is collected and recycled. Based on the team's estimation, ZUS Coffee can aim to recycle approximately 50 tonnes, 28 tonnes and 120 tonnes of cardboard boxes, milk cartons and PET

cups, respectively, in 2025 (ZUS Coffee, 2024). ZUS Coffee could gradually increase its target threshold to reach up to 70-80% of the recycling rate over time, as envisioned by countries like Japan and South Korea.

#### ***Employee's Proficiency in Waste Handling.***

One goal is to have at least 50% of ZUS Coffee staff across Malaysia trained and well-versed in handling waste, following EcoCycle's phased scale-ups across ZUS Coffee outlets. ZUS Coffee can create a short anonymous survey to gather employees' feedback and address operational pain points to further refine the initiative. A low number of negative inputs from employees would be a great indicator for ZUS Coffee to gauge the effectiveness and seamlessness of EcoCycle. Otherwise, it could be a decisive criterion for ZUS Coffee whether to proceed or discontinue EcoCycle moving forward.

#### ***Customer Sentiment.***

As customers are involved in the segregation process of PET cups, ZUS Coffee should also evaluate customers' sentiment towards the initiative using metrics, such as the Customer Effort Score (CES). ZUS Coffee can gather such information by asking customers a short question in ZUS Coffee's mobile application after the payment process. A lower CES indicates that the segregation process does not require much effort, nor does it negatively affect the overall customer experience. While additional steps of segregating plastic waste could potentially be perceived as *burdens* for customers, such good habits can gradually influence them to be responsible for their own waste.

### ***3.3.4 Workforce Development***

The first step of the EcoCycle implementation is to set up the **Green Team** which will be discussed in detail in section 3.4.3, and get the current baseline of waste generated for each packaging type. SOPs will then be communicated to the internal management before securing recycling partners and selecting several ZUS Coffee branches to pilot the EcoCycle initiative. Next, in-store employees in those selected branches will undergo training on proper waste handling. Logistics Operators responsible for delivering inventory and collecting recyclable items will also be briefed on the recycling collection schedules. There are two potential training methods that are being considered: an online booklet offering a detailed, easily accessible recycling guideline including timelines, and a short video tutorial to provide clarity on the procedures.

Given the new operational changes, employees are expected to require a one-month period to adjust accordingly. Trials would be held twice, followed by feedback from employees, customers, and recycling partners, as well as revision to SOPs where necessary. The team suggests piloting the programme beginning from the KL/Selangor region, which has the highest concentration of outlets—248 out of 586 outlets—and serves as the location for ZUS Coffee's warehouse (ZUS Coffee, n.d.-b). ZUS Coffee can eventually communicate and implement EcoCycle in other branches and regions in the long run. Figure 6 presents a detailed timeline for the implementation of the new procedure to be introduced at ZUS Coffee.



**Figure 6.** EcoCycle Implementation Timeline

### 3.3.5 Recycling Implementation Schedule

ZUS Coffee can implement a staggered recycling schedule for each packaging waste recycler in a similar manner to the recycling systems established in Japan. Packaging waste will be collected on the same day of supply delivery and then brought to the warehouse. Partnering recyclers will then be able to collect waste in-bulk, even specifying the amount to be collected, on a weekly basis, scheduled for a specific day which has been agreed upon. This approach will enable ZUS Coffee to monitor both the total packaging waste generated and the amount recycled each week, while also providing partnering companies with the benefit of avoiding the hassle of collecting small quantities of waste on a daily basis. Table 1 illustrates a sample timeline that ZUS Coffee can follow and adjust accordingly depending on factors such as recycling partners’ locations and supply delivery timing to different regions. Assuming store collection happens on Monday, partner recyclers can start collecting the waste on subsequent days from ZUS Coffee’s warehouse. By doing so, ZUS Coffee can avoid overflowing its warehouse from the collected packaging waste as recycling partners would collect the waste on a regular basis.

Packaging Waste	Collection from KL/Selangor Outlets						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Cardboard		Partner A		Partner D	Partner A		Partner D
Milk Cartons			Partner B & C			Partner B	
PET Cups				Partner D			

Collection by ZUS Coffee Logistic
  Collection by Recycling Partners

**Table 1.** Sample Recycling Schedule

As more packaging waste is collected and brought to the warehouse at KL/Selangor, ZUS Coffee can consider setting up a collection point at several ZUS Coffee outlets outside KL/Selangor and engage with recycling companies in other regions to mitigate overloading of the warehouse in KL/Selangor, reducing the burden of recycling partners. To ensure more flexibility for ZUS Coffee and recycling partners, the internal disposal value chain can be extended further whereby recycling partners can collect directly at designated ZUS Coffee outlets and ZUS Coffee can

provide service to deliver the items to be recycled immediately to recycling partners' facilities (Figure 7).

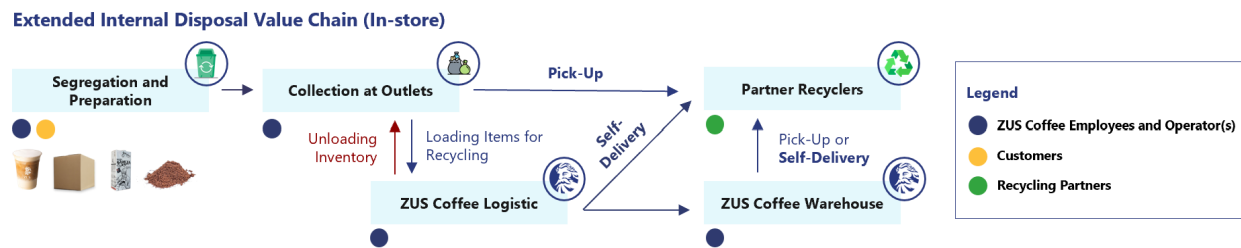


Figure 7. Extended Internal Disposal Value Chain

### 3.3.6 Recycling with Impact – CAREton Project

ZUS Coffee can do more than just recycling packaging waste to minimise environmental impact. In fact, CAREton Project, a recycling awareness campaign co-organised by Tetra Pak Malaysia and Nestle Malaysia, has been recycling used beverage cartons into roof tiles and panel boards to be donated to NGOs and other community projects since 2012 (Tetra Pak Malaysia, 2020). Through this CAREton Project, individuals and businesses alike can donate and recycle their used beverage cartons by dropping them off at designated drop-off points scattered across Malaysia. These drop-off points generally tend to be businesses who have become CAREton Collection Partners and, as such, have designated certain outlets/stores as drop-off locations such as Tzu Chi Malaysia, 99 SpeedMart and Pertumbuhan Amal Seri Sinar etc. The used beverage cartons will first be transported from the drop-off points to KPT Recycle Sdn Bhd who will sort the cartons, and then to S.H.A. Hup-Aik where they will be processed into roof tiles and polyAI panel boards. A major beneficiary of this campaign is Epic Homes, a non-profit organisation building homes for the Orang Asli community since 2010 (Epic Homes, 2024). To help supply the roof tiles needed to build the homes, it is estimated that approximately 67 kg of beverage cartons (2,100 milk cartons) are required to produce one roof tile and 46 roof tiles (88,000 milk cartons) to complete one Epic Home. Since the project's inception in 2012, a cumulative total of 4,700 tons of used beverage cartons have been converted into polyAI panel boards and roofing tiles to build 1,500 Epic Homes (Tetra Pak Malaysia, 2020). By following the footsteps of CAREton Project, ZUS Coffee can not only look to minimise its environmental footprint, but also support local communities at the same time.

## 3.4 Grounds to Grow Initiative

### 3.4.1 Large Environmental Costs of SCGs

SCGs, the residue obtained during the coffee brewing process, forms the largest source of edible-sourced food waste in ZUS Coffee's value chain, amounting to 615 metric tonnes of SCGs in the first half of 2024 alone (ZUS Coffee, 2024). This issue is commonly echoed across the coffee beverage industry, where SCGs is the most abundant waste generated, amounting to 60 million tonnes globally (Forcina et al., 2023). The effects of excessive SCGs in landfills further aggravate the dire climate change. After reaching landfills, this immense amount of SCGs usually takes at least three months before decomposition starts, releasing toxic compounds like acidic leachate, and damaging the surrounding soils (Kanniah, 2020). At this stage, SCGs release methane gas into the atmosphere, which has a greenhouse effect 28 times higher than carbon dioxide (bio-

bean, n.d.). Given the high environmental costs associated with the improper disposal of SCGs and ZUS Coffee's large operational scale, ZUS Coffee can actively play a part in the *waste valorisation*.

### 3.4.2 The World Wildlife Fund Hotel Kitchen Asia Pacific Toolkit (WWF Toolkit)

Given the lack of standardisation in sustainability within the F&B industry in Malaysia, the team has adopted the WWF Hotel Kitchen Asia Pacific Toolkit (*referred to as the WWF Toolkit*) which provides best practices for minimising food waste for hotel kitchens in Asia Pacific and adopted by renowned hotels like The Westin Kuala Lumpur and Grand Hyatt Singapore (Pearson & McBride, 2017). The team has identified this to be the most comprehensive toolkit, applicable to eatery businesses, besides hotels, and have made relevant adjustments to tailor it for ZUS Coffee's operational needs.

### 3.4.3 Establishing the Green Team

The WWF Toolkit firstly prioritises establishing a *Green Team*, a set of internal employees and external stakeholders (e.g., donation partners) related to managing food waste. Secondly, establishing a *Standard Operating Procedure (SOP)* related to the separation and measurement of food waste across different ZUS Coffee Outlets will be essential to allow standardisation of efforts, setting of goals and impact quantification (Pearson & McBride, 2017).

The Green Team serves to designate individuals with clear roles related to sustainability initiatives, while fostering motivation and a culture around sustainability in day-to-day operations. The team has adapted the WWF Toolkit recommendations and tailored them to ZUS Coffee's operations as follows, to establish the Green Team. Each ZUS Coffee Outlet will have its own Green Team of Store Managers and Operations Leads. Furthermore, the Green Team will also consist of PR & Marketing Leads, and HR Leads, as shown in Figure 8.



**Figure 8.** The Green Team at ZUS Coffee

To foster a culture of sustainability, the WWF Toolkit recommends that motivation should come from the top of the organisation, for example, having daily positive reinforcements and acknowledgments from the leadership level or by Store Managers. The toolkit recommends having regular townhall meetings to share best practices among green teams of different stores (Pearson & McBride, 2017).



As a short-term push for motivation, ZUS Coffee can implement creative programmes to kickstart a culture of sustainability. For example, ZUS Coffee can implement a *Leadership Board Challenge* to set a clear goal for each store's green team, thereby measuring and publishing each store's progress periodically to stir a spirit of competitiveness. The winning Green Team will be crowned as the "*Sustainability Champion*" and be rewarded incentives. This becomes a platform to share best practices amongst Green Team's outlets and also communicates ZUS Coffee's first step towards sustainability.

### 3.4.4 Key Benefits of SCGs

Based on the WWF Toolkit, the next best step for ZUS Coffee is to donate its SCGs. In this section, the team explores the key benefits of SCGs and recommends two ways of donating SCGs to its community partners and customers.

#### Agricultural Uses.

Research has shown that SCGs are rich in nutrients like Potassium, Phosphorus, Magnesium and Calcium which can accelerate soil nutrients in agriculture to act as a substitute for conventional fertilisers, simultaneously accelerating plant growth, and even enhancing vegetables' nutritional content (Bomfim et al., 2022). However, key limitations of using SCGs exist due to coffee's acidic nature which has a toxic effect to the soil if used in excessive amounts. Certain workarounds are needed in order to best utilise SCGs. For example, the decreased number of earthworms in the soil due to the use of SCGs can be reversed by adding used cardboard boxes to the composting process (Liu & Price, 2011). Therefore, utilising SCGs requires experimentation based on variables such as soil type, amount of SCGs used, and types of plant grown, in order to understand the most effective practices for their application.

#### Non-Agricultural Uses.

SCGs are often used in households as practical *life-hacks* such as placing SCGs in bowls or tea bags around the houses (e.g., refrigerators, cupboards, in shoes) to remove bad odour. Given the nutritional benefits for SCGs, many repurpose and treat SCGs using other household materials like coconut oil and olive oil as body coffee scrubs (Yee, n.d.). Competitors like Starbucks and DOME Café Malaysia have implemented initiatives to give away SCGs for free for customers. Across both outlets, SCGs are packaged in compostable or reused bags near the retail checkout areas and promoted as compost and fertiliser materials for customers to bring back home for their gardens, as shown in Figure 9.



Figure 9. Starbucks 'Grounds for Your Garden' Initiative



### 3.4.5 Implementation

A recommended implementation plan is to firstly host a pilot programme by donating SCGs to key partners such as community stakeholders like Kebun Kebun Bangsar (KKB) and Green Steps Malaysia (GS Malaysia). Given the risks of utilising SCGs due to its toxicity as mentioned in 3.3.4, ZUS Coffee needs to experiment with how to best decompose SCGs and utilise them as a fertiliser, before donating it to customers. Working closely with KKB and GS Malaysia over the course of three months would allow ample time for ZUS Coffee to gain feedback and understand the best practices of treating SCGs and maximising its agricultural use before making sound recommendations to customers. A flowchart to illustrate the overall implementation timeline is given in Figure 10.



Figure 10. SCGs Partnership Implementation Timeline

For the **Pilot Programme with KKB**, the key milestone is to establish at least 25% of SCGs donated per retail store. Given the team’s analysis that each retail outlet produces 26.5 kg of SCGs, this amounts to an estimated 6.6 kg per retail outlet per week and donating a total of 19.6 kg of SCGs across the three ZUS Coffee outlets. Conducting such pick-ups at a smaller scale builds up a habitual routine and allows for a pilot test to figure out operational logistics before expanding the programme further. Within the timeframe of three months, another key milestone is to develop a close relationship with KKB to leverage their farming experience to understand the best recommended steps to use ZUS Coffee’s SCGs.

Thereafter, ZUS Coffee is **to pilot the donations of SCG** in their outlets, gauging the customers’ interests in taking home used SCGs at one to three retail outlets with the highest SCG volume and high customer footprint. This acts as an excellent test bed for baristas to understand and develop an SOP for SCG donations. ZUS Coffee is recommended to **internally discuss and align goals** for these two programmes after the pilot phases, bearing in mind logistical constraints and customers’ interests. Another key point is to align with KKB on potentially scaling up the donations and gauge its receptiveness moving forward. Lastly, ZUS Coffee can **implement both programmes at a larger scale** once the SOP has been disseminated to the relevant participating ZUS Coffee retail outlets in the programmes. ZUS Coffee can consider diversifying its farm partnership beyond KKB and ramp up its digital marketing efforts to raise awareness about its SCG Donation Scheme.

Further details regarding the implementation timeline and key milestones are elaborated in Table 2.

Phase	Description	Key Milestones
Pilot Programme with KKB (3 Months)	<ul style="list-style-type: none"> <li>• Develop a baseline by tracking initial SCGs volume/store</li> <li>• Establishing a weekly routine of picking up SCGs from 1-3 ZUS Coffee retail outlets nearby KKB &amp; GS Malaysia by liaising with the logistics team &amp; baristas</li> </ul>	<ul style="list-style-type: none"> <li>• Weekly routine and sustainable logistics pick-up and drop-off of SCGs for 1-3 ZUS Coffee retail outlets</li> <li>• Develop a SOP for Logistics and Operations</li> <li>• At least 25% of SCGs donated per week per ZUS Coffee retail outlet</li> <li>• Close relationship with KKB &amp; GS Malaysia and understanding best practices to use SCGs (e.g., handling of and using SCGs)</li> </ul>
Pilot Programme for SCG Donations (1 Month)	<ul style="list-style-type: none"> <li>• Identify 1-3 retail outlets with the highest SCGs volume and high customer footprint</li> <li>• Repackaging SCGs into used coffee bean packages. Leave at retail store to be picked up</li> </ul>	<ul style="list-style-type: none"> <li>• Track SCGs donated per retail store in a weekly basis</li> <li>• Develop a SOP to handle SCGs across ZUS Coffee retail outlets</li> </ul>
Evaluation of Pilot Programmes (2 Weeks)	<ul style="list-style-type: none"> <li>• Internal discussion to understand the past performance of the two pilot programmes &amp; realignment of goals</li> </ul>	<ul style="list-style-type: none"> <li>• Identify number of ZUS Coffee Retail outlets donating to community partners</li> <li>• Implementation plan to scale SCG donations</li> <li>• Review and standardize SOPs to be shared across participating ZUS Coffee outlets</li> </ul>
Scaling and Standardisation of Programme (ongoing Basis)	<ul style="list-style-type: none"> <li>• Aligning with internal stakeholders such as baristas and logistics for each retail outlet and external stakeholder (KKB) on SCGs donation</li> <li>• Scaling of SCG donation to customers</li> </ul>	<ul style="list-style-type: none"> <li>• Sharing of key SOPs to each participating outlet</li> <li>• Expand Community Partnerships</li> <li>• Launch Digital Marketing efforts directed to customers to increase publicity</li> </ul>

**Table 2.** Implementation Timeline and Key Milestones

**3.4.6 Partnerships**

**Kebun Kebun Bangsar (KKB)**

After conducting research on multiple potential partners, our team has identified Kebun Kebun Bangsar (KKB) to be a viable partner for ZUS Coffee’s initial collaboration for partnership. KKB, an urban veggie farm located in Kuala Lumpur, welcomes volunteers to tend their veggie gardens and regularly hosts community events, such as working remotely at the garden together for free. The farm aims to educate visitors on environmental consciousness and sells fresh produce farmed sustainably through its farmer markets. The team has contacted KKB for queries, and they are receptive to SCG donations of any amount. However, it does not do pick-ups, necessitating ZUS Coffee to drop off its SCGs at the designated donation bin at the farm (Appendix B7).

**Green Steps Malaysia (GS Malaysia)**

Green Steps Malaysia designs zero-waste solutions tailored for the community and corporations, offering digital solutions such as calculating carbon dioxide emissions. The organisation has previously worked with Panasonic to implement the Food Waste to Wealth Programme, designing a competition encouraging households to segregate types of waste and compost food waste (Panasonic, 2023). The organisation has established six Community and

two Café Compost Rings, providing residents and Green Steps' café partners with an easy solution to divert SCGs, tea leaves and vegetable peels away from landfills (Green Steps, n.d.). After contacting GS Malaysia, the organisation is open to working with ZUS Coffee and is keen to arrange a call to discuss the logistics arrangement.

## 4. Social Initiatives

### 4.1 Social Issues in Malaysia

As waste is the most pressing sustainability issue identified earlier in section 2.2 Competition Landscape, the social initiative ideally ties back to waste management.

#### 4.1.1 Food Insecurity

Food insecurity is a significant social challenge in Malaysia, with the country ranking 56th out of 125 countries in terms of hunger levels. Despite having a moderate level of hunger, the country is struggling to maintain their food security. The Global Hunger Index (GHI) reveals an escalation of food insecurity, from 10.9 in 2014 to 12.5 in 2022. In Malaysia, one-third of the children are facing malnutrition while one-sixth of the children face either wasting<sup>2</sup>, stunting<sup>3</sup>, or both. The statistics show a multifaceted picture of hunger and nutritional deficiencies which disrupt the country's socio-economic landscape, such as inhibiting the country's progress to achieve zero hunger by 2030.

Rising commodity prices over time have made it challenging for children in low-income families to obtain the necessary nutrients. For instance, in Kuala Lumpur, 52% of these children consume less than three meals per day (Sipalan, 2024). Moreover, the pandemic creates economic hardships for these families to obtain sufficient calories as they focus on mere survival. The high reliance on imported food and supply chain disruptions further exacerbated this issue (Urban Hijau, n.d.). To address inflation and food insecurity challenges, the government emphasised food security as a key issue in the revised Budget 2023.

#### 4.1.2 Food Waste

Lacking a comprehensive and compulsory reporting and management framework as well as advanced technology to manage food waste, Malaysia's food wastage rate is about twice that of other ASEAN countries. In 2023, Malaysia's food waste per capita reached 260 kg (ITA, 2024), compared to 146 kg for Thailand (The Nation, 2024), and 130 kg for Singapore (NEA, 2024; Worldometer, n.d.). Due to data constraints, the most recent data for Indonesia is from 2021 with 184 kg of food waste per capita (Natalia, 2024). In Malaysia, food waste contributes to 44.5% of the total waste, followed by plastic with a proportion of 19% (Graze Market, n.d.). Food waste is an alarming issue, comprising 55% of landfill waste, which contributes to 58% of methane emissions from landfills. Of this 58%, 61% of methane emissions escape capture by technology and are released into the atmosphere. (Lauria, 2024). This issue is concerning as methane can trap 80 times more heat compared to carbon dioxide, accelerating global warming (Garthwaite, 2021).

The main issue that drives food waste in Malaysia is inadequate recycling facilities and ineffective waste management systems (Azri et al., 2022). In terms of government regulations, Malaysia has implemented a comprehensive food waste management framework such as the Solid Waste and Public Cleansing Management Act (SWPCMA) 2007. However, it lacks uniformity across the country, especially in Sabah and Sarawak (Kamaruddin, 2022), and there are no solid strategies

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<sup>2</sup>a condition in which a child is too thin for his or her age due to significant weight loss or failure to gain weight

<sup>3</sup>a condition in which a child is too short for their age

to tackle food waste. Cultural and social gatherings further exacerbate food waste due to over-preparation to accommodate guests. This problem is intensified due to the lack of initiative from the public. While 70% of the population is aware of food waste, there is a gap between awareness and action, with only 50% taking action to minimise it (Hang, 2024).

In more developed countries like Singapore, less food waste per capita is observed due to landfill constraints. Moreover, strong government regulations in managing organic waste put Singapore ahead of the other SEA countries. To illustrate, in 2021, large enterprises are required to allocate space to segregate food waste in their design plan. In 2024, the Resources Sustainability Act was placed to treat food waste from industrial activities (NEA, 2020). Nonetheless, since the regulation was newly enforced, only 18% of food waste has been recycled so far. Thailand, on the other hand, like Malaysia, has no enforced regulations. However, Thailand has biogas plants to convert food waste into energy (Wachpanich & Coca, 2022). Additionally, strong partnerships with NGOs, such as Scholars of Sustenance (Scholars of Sustenance, n.d.), create a greater impact on food waste management compared to Malaysia.

## **4.2 ZUS Coffee's Past and Ongoing Social Initiatives**

Based on the survey, the top three social initiatives are training for employees, supporting the community, and diversity. ZUS Coffee has roughly addressed all three points. To enhance employees' skills, ZUS Coffee provides on-the-job training for employees and implements a roadmap to guide employees' career progression. ZUS Coffee also displayed its inclusivity through its partnership with Audiolab where it supports hearing-impaired employees. The coffee chain also integrates more Malaysian tradition into its innovative menu, like the Cham Latté to celebrate diversity of Malaysian culture.

In terms of community service, most of ZUS Coffee's initiatives focus on Gaza as it is a more pressing issue in today's time. These initiatives include collaboration with the Malaysia Consultative Council of Islamic Organisation (MAPIM) to donate RM100,000, collaboration with MyCare to facilitate water tanks and mobile medical clinics, and more. For Malaysia, ZUS Coffee also provided halal certification education for the public, free coffee after Friday prayers, and sponsored welfare goods for underprivileged children and single mothers. Since the majority of ZUS Coffee's customers are Malaysians, it would be beneficial for the company to engage in more impactful community service initiatives that directly benefit the Malaysian community.

## **4.3 Potential Social Initiatives**

Based on the WWF toolkit as elaborated in section 3.4.3, the organic food waste management efforts will focus on planning, handling, donation and diversion to reduce excess food. Tackling food waste at the planning and handling stages is preferred over tackling food waste at later stages. Anticipating food demand could avoid over-production costs. Donation and diversion, on the other hand, is a mitigation stage for when food has reached individual outlets. In planning, it is best to double check the inventory, such as ingredients, that is stored in central kitchens to prevent spoilage. To better gauge the quantity to be produced each week, weekly communication between the central kitchen and outlets is essential. Second, handling emphasises checking the accuracy of the items sent to the outlets to ensure that the delivered items are correct and match the expected quantity. In the event of overproduction, having a proper storage space for surplus

food is a crucial step to assure that the food for donations is edible. If applicable, ZUS Coffee can repurpose surplus food into prepped meals, depending on the resources available.

Third, food donation highlights working with food recovery partners and ensuring that all staff are aligned in the process. For instance, there could be one donation lead per outlet acting as the communication hub between the outlet, central kitchen and food recovery partners. Training all staff is part of the operating procedures, crucial for smoother donation processes. Additionally, to limit liabilities, ensure compliance, and have clearer partnership agreements, ZUS Coffee should have a written agreement with the food recovery partners that covers the role of each party. To observe the trends and provide feedback to the central kitchen for production quantity adjustment, the amount of donated excess food should be monitored and analysed. Although the demand each week varies, data will allow ZUS Coffee to forecast future demands more accurately. Ultimately, this will reduce the amount of excess or spoilt food. When donation is not possible, the last step is diversion, such as joining composting programmes where surplus inedible food is fed to maggots. The objective is to reduce landfill disposal and lower waste bills from a reduction of waste volume.

#### **4.3.1 Sharing Abundance**

With an average of more than 10% of excess food each day in several stores, especially in Coffee Meets Pastry by ZUS Coffee, ZUS Coffee can consider working with Food Bank Malaysia (FBM) in two phases. For the first phase, FBM could collect near-expired perishable and non-perishable food from selected ZUS Coffee locations in KL/Selangor with a full ZUS F&B menu on a weekly basis. These food and beverages will be distributed free to beneficiaries of their choice, such as refugees, low-income families, other welfare organisations, charities and soup kitchens. If the excess food quantity is low, ZUS Coffee can choose to deliver it to FBM's transit storage in Cyberjaya or discuss alternative arrangements with the food bank.

The second phase focuses on opening a mini ZUS food bank pop-up in certain locations, around the neighbourhood or in more remote areas. This targets schools with underprivileged students, welfare organisations and villages in rural areas. While the first approach is a continuous weekly action, the latter is a twice-a-year initiative. As going to rural areas might increase logistics cost, the mini-food bank is suggested to be a bi-annual initiative as a part of management and employees' volunteering activities. The objective of this approach is not only to minimise excess food, but also to increase media exposure, especially when it is done in a more remote area. This publicity will focus more on the digital presence through news, social media and ZUS Coffee's website. One concern when it comes to implementing this second phase is the unpredictable quantity of excess food. To allow more people to benefit from the programme, the amount of food and beverage that each beneficiary can take can be subject to their performance in simple games, e.g. throwing balls into labelled buckets where they can win food and beverages depending on where the ball lands on (Appendix C1). In the long run, FBM will have a pilot programme to guide businesses in implementing such a programme.

#### **4.3.2 Rescue Bites**

For outlets not participating in food donation activities, especially outlets outside of KL/Selangor, outlets with drinks and partial food, and drinks-only outlets, ZUS Coffee can broaden its customer

base by selling nearly expired food and beverages by partnering up with local start-ups, namely ReMeal and Paperbox. ReMeal is a food e-commerce platform like GrabFood, which focuses on offering excess food at a special rate (ReMeal, n.d.-a; Appendix C2). The app is available on mobile devices, along with a separate application called the ReMeal Seller app, specifically designed for businesses. Businesses in ReMeal have flexible commitment periods with no minimum duration. In return, 20% of the sales revenue will go to ReMeal as commission fee for utilising the platform. Although the app operates across Malaysia, its partners are only currently in bakeries and coffee shops in Kuala Lumpur and Sarawak, as it only launched in early 2024.

In terms of mechanics, ReMeal is quite intuitive, like other food e-commerce platforms. Sellers can list a mystery box with surplus food or individual items in their store in ReMeal (ReMeal, n.d.-b). By default, customers can browse for brand names or products through the app. Then, customers can purchase and pay directly from the ReMeal app. Lastly, customers can pick up the food in the chosen outlet when it is ready. Joining ReMeal can help ZUS Coffee recover sunk costs from the production of ZUS Coffee F&B by expanding its customer base, in addition to minimising the amount of food waste from excess food. However, ReMeal currently only offers self-pickup.

ZUS Coffee can enhance its visibility by partnering with another food excess app, such as PaperBox, which offers both self-pickup and delivery options (PaperBox, n.d.). Nevertheless, since PaperBox is in their early stages, their app is still under development. Currently, customers' orders are scheduled via a Google Form, which the PaperBox team will then manually process and reach out to customers for confirmation within three hours (PaperBox, n.d.). The Google Form consists of all listed vendors and the necessary customer information such as delivery, self-pickup, contact details, address and payment confirmation, just like the ReMeal app with different visuals (Appendix C3). In the event where there is no item stock left, PaperBox will contact customers for cancellation or reschedule their order to the following days. PaperBox also has no minimum commitment, only a low commission fee of 10% of the total sales for their soft launch period. However, this will increase to 15-25% depending on the business size from February 2025 onwards, after the app is ready.

Geographically, PaperBox covers more cities in Malaysia compared to ReMeal, and its delivery option makes it more convenient for customers. On the other hand, ReMeal has a fully established app, offering a better user interface and user experience which is more likely to be more enticing to customers. By having a presence in both apps, ZUS Coffee can amplify its chance of selling its excess food. In return, not only do both start-ups get a commission fee, they also get better credibility as ZUS Coffee is a well-established brand in Malaysia.



## 5. Governance

### 5.1 Reporting Standard

The foundation of sustainability reporting is for a firm to pinpoint and prioritise its impacts on the “*economy, environment, and people*”, thereby increasing a firm’s transparency about their overall impacts to stakeholders. This signals credibility for companies and guides readers on using disclosed information to assess the firm’s current policies and strategies (Global Reporting Initiative, n.d.-b).

#### 5.1.1 GRI

The Global Reporting Initiative (GRI) is an independent and international organisation that helps businesses take responsibility for their sustainability-related impacts by providing a comprehensive guide of topics to disclose. It is a widely popular sustainability reporting framework adopted by 68% of N100<sup>4</sup> companies globally and almost 100% of the N100<sup>4</sup> companies in Singapore and Taiwan (KPMG, 2022). The GRI is also a recommended reporting framework by Bursa Malaysia, as its requirements align closely with Bursa’s own standards. Using GRI as a reporting framework not only increases comprehensiveness amongst readers, but it also acts as a great foundation before adding on other existing disclosing standards.

GRI has three main standards: Universal, Sector, and Topic Standards. All companies are advised to follow the Universal Standards, which act as a guide with information on the purpose of GRI standards, the disclosing structures, and how the materiality topics are chosen and managed (Global Reporting Initiative, n.d.-b). Then, companies will select the most applicable Sector Standards according to the industries. The Sector Standards published by GRI are still incomplete, only covering 6 out of 40 industry sectors (Global Reporting Initiative, n.d.-c). As such, the most relevant Sector Standard to ZUS Coffee as of November 2024 will be for Agriculture, Aquaculture, and Fishing. After a Sector Standard is chosen, it is compulsory for companies to disclose all related information within that sector standards (Global Reporting Initiative, n.d.-b). To exemplify, *the food security* topic falls under Agriculture, Aquaculture, and Fishing Sector Standards, which requires companies to disclose the total weight of waste generated in metric tonnes by various waste types.

#### 5.1.2 TCFD and ISSB

The Task Force on Climate-Related Financial Disclosures, also known as TCFD, (CDSB & SASB, 2019) and the International Sustainability Standards Board (ISSB) are sustainability reporting frameworks that ZUS Coffee can look to implement in the medium- to long-term horizon. Of the two, ISSB offers a more comprehensive reporting framework, building upon the required disclosures of TCFD while also introducing additional requirements for greater specificity (IFRS Foundation, 2024). Nonetheless, both TCFD and ISSB are reporting frameworks that focus more on the climate-related financial risks of a company. This is different from GRI that focuses more on the materiality risks of a company. For this very reason, TCFD and ISSB are frameworks that are more suitable for investors and regulators who would like to see how sustainability factors affect the finances of a company.

Ultimately, a combination of GRI and TCFD/ISSB reporting will allow ZUS Coffee to be more comprehensive in its sustainability reporting and efforts as both materiality and financial impacts will be addressed. This is especially more so the case for TCFD as it will be required by Bursa Malaysia for Main-Market listed issuers to conduct TCFD reporting from December 31, 2025, onwards (On, 2024).

**5.2 Materiality Assessments**

ZUS Coffee can map out GRI’s materiality topics based on the scale of impacts to stakeholders and the impacts that ZUS Coffee faces. According to GRI, conducting a materiality assessment is vital to firstly identify material issues affecting a firm’s stakeholders. Material issues can be identified from different reporting frameworks such as GRI, SASB and others according to the industry types. Thereafter, ZUS Coffee can consult both internal stakeholders such as employees and external stakeholders such as customers, suppliers, and investors through questionnaires or survey methods. ZUS Coffee can then incorporate results using quantitative and qualitative methods. Quantitative methods refer to ranking materiality issues in ranks of importance and validating these results with the management team for a *sense-check*; qualitative methods refer to the alignment of results with top management’s overall strategy.

Based on the team’s analysis of customer surveys and competitor interviews, the team has mapped out a sample GRI Materiality Topics Assessment in Figure 11 below. For a more comprehensive approach, ZUS Coffee can involve the other aforementioned stakeholders, such as employees, suppliers, and management, for a more holistic materiality matrix.

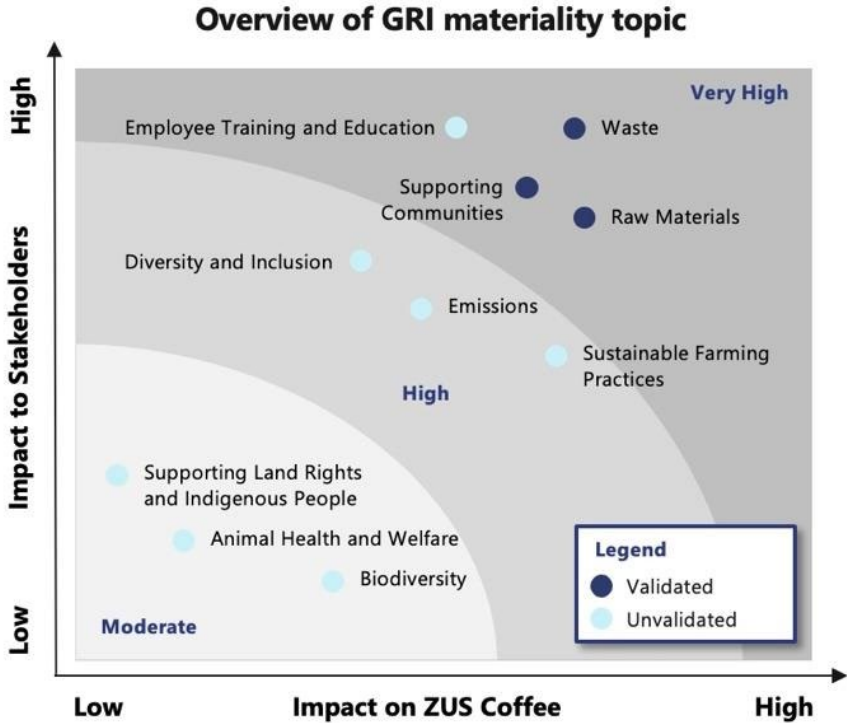


Figure 11. Materiality Matrix Sample

## 6. Feasibility and Risk-Mitigation

### 6.1 Prioritisation Matrix

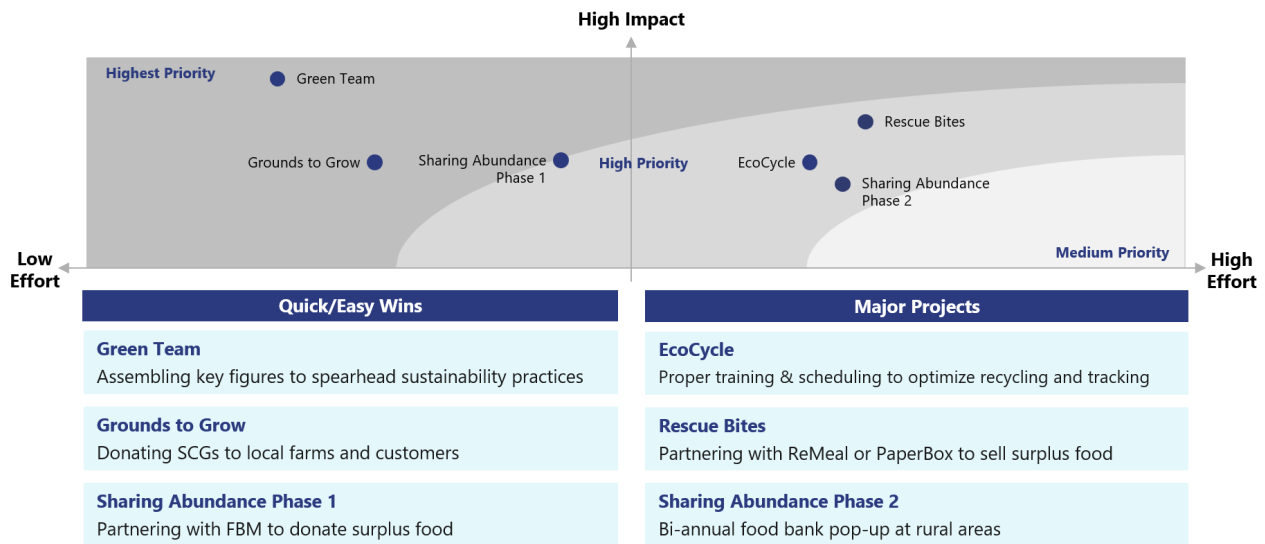


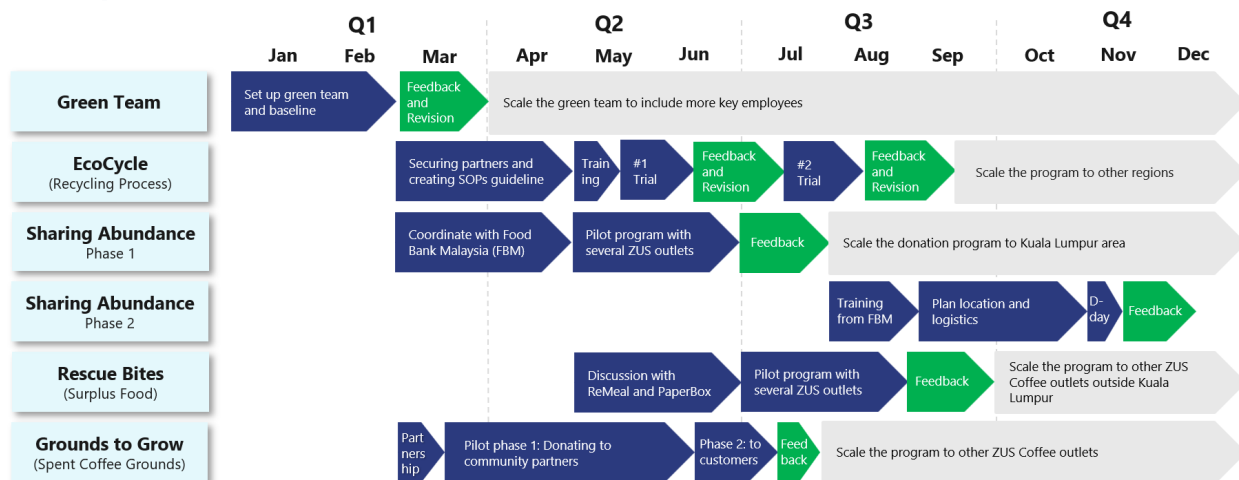
Figure 12. Prioritisation Matrix

Figure 12 shows the mapping of each initiative according to its impact and required effort, with a distinction between quick wins and major projects to better understand the implementation and prioritisation of the proposed initiatives.

Under quick and easy wins, several initiatives stand out: Green Team ranks the best as it is a low-effort initiative with high potential impact. The Green Team will play a critical role in spearheading efforts and maintaining momentum. Next, Grounds to Grow aligns with existing operations and thus requires minimal additional effort while contributing to waste reduction and community engagement. As Phase 1 of Sharing Abundance involves partnering with Food Bank Malaysia, slightly more effort is required for coordination, though that does not undermine its practicality and ability to address food insecurity while reducing waste.

On the other hand, major projects demand more resources but offer significant long-term benefits. EcoCycle optimises the recycling process and develops a proper training programme and a scheduled system. While this initiative requires higher effort, it brings direct and significant environmental benefits in practicing sustainable waste management across all branches. Next, Rescue Bites involves partnering with organisations such as ReMeal or PaperBox to sell surplus food. As this opens new channels to sell food items and an opportunity to turn food waste into a revenue stream, the team foresees more details to be ironed out internally and with the partners. Lastly, Phase 2 of Sharing Abundance could be more complex to organise and less frequent, however, this initiative extends the impact of the food donation programme to underserved communities.

## 6.2 Implementation Timeline



Remarks: Partnership agreements with other organizations are subjected to further discussion

**Figure 13.** Gantt chart detailing the strategic roadmap

To elaborate on the detailed steps laid out in Figure 13, the rollout of these initiatives is planned over the span of a full year, ideally in 2025, segmented into phases to ensure smooth execution and continuous refinement. While the team recognises that ZUS Coffee is still evaluating options and compiling ideas for further consideration, this Gantt chart offers a reference framework to visualise timelines, dependencies and milestones, helping guide discussions and decision-making throughout the process.

To kick things off, the Green Team will be established at the start of Q1 to lay the foundation for sustainability efforts. After receiving initial feedback and making necessary revisions, the team will expand to include more employees. ZUS Coffee can roll out their preferred programme, ideally amongst EcoCycle, Sharing Abundance Phase 1 and Grounds to Grow. These initiatives could be implemented simultaneously and would complement each other in building a comprehensive strategy for ZUS Coffee’s ESG efforts.

Throughout the implementation journey, the team has broken down the key aspects into achievable steps to be followed. Moreover, the team has allocated time for pilot programmes and trial runs to ensure partner engagement and the development of SOPs. As such, a crucial step for our initiatives would be the feedback loops that help ensure that adjustments are made before full implementation across all outlets. While not captured in Figure 13, ZUS Coffee could also establish a governance framework as recommended in Section 5.1. In the long run, ZUS Coffee could consider exploring ways to reduce the amount of waste generated from its online purchases on top of the established incentives.

## 6.3 Budget Analysis

Our strategy is centred around cost-efficiency to promote frictionless adoption across ZUS Coffee branches. To achieve this, we’ve structured our recommendations around three guiding principles around financial feasibility: to implement them within the monthly budget of RM10,000, to minimise recurring costs, and to follow a phased expansion approach.

Firstly, the team intends to reuse existing materials and packaging wastes in the execution of our recommendations. Of which, only the collection of milk cartons and PET cups could incur additional costs for the environmental initiatives. Similarly, the setup of bi-annual pop-up booths under Sharing Abundance would require funding, though it is less frequent, and the precise implementation cost remains challenging to determine due to the numerous assumptions required.

In the same vein, variables such as transport costs and unequal sales volume across outlets introduce significant variability, making an exact estimation difficult. As such, our team focused on leveraging existing resources and reusing waste materials to minimize the costs produced. For example, ZUS Coffee can leverage on the current supply chains for the collation of waste materials in our EcoCycle idea, thus minimising transport costs and keeping new expenditures to a minimum. Consequently, further detailed analysis and validation of assumptions are recommended for ZUS Coffee to achieve a more accurate cost projection.

Among the foreseeable factors within our scope to manage and influence, the team has detailed our initiatives to minimise recurring costs for financial flexibility. The collection of milk cartons and PET cups incurs low variable costs, as only biodegradable bin bags are needed. As such, ZUS Coffee can reallocate funds to other priorities as needed, freeing up cash for ad-hoc community events or to respond to urgent environmental challenges. A detailed breakdown of the initial investment and varying costs can be found in Appendix D1.

Finally, the initiatives proposed are intended to be implemented in phases, starting with outlets in the KL/Selangor region. Piloting initiatives within selected concentrated areas offers several benefits: it minimises logistical complexity, keeps costs down, and allows for faster feedback loops. Once successful models are refined in this key area, they can be scaled across the rest of the country efficiently, ensuring consistency in implementation.

## **6.4 Long-Term Risks and Mitigation**

To align ZUS Coffee's long-term direction and evaluate the impact of implementing the suggested initiatives, it is essential to consider potential risks and mitigations.

### **6.4.1 Physical Risk**

Physical risks refer to environmental events like floods, droughts, or forest fires that can disrupt operations and impact financial performance. For example, Malaysia has experienced severe floods that not only damaged infrastructure but also disrupted supply chains, impacting productivity and delivery timelines for many businesses, especially SMEs (Bedi, 2022). Climate risks further threaten global coffee production, raising vulnerabilities to price uncertainty, bean quality and taste. Growing coffee demands precise environmental conditions, including specific temperatures, water availability, and soil quality. However, climate change has disrupted these requirements, with increasingly frequent heatwaves, excessive rainfall, and droughts—especially in the Southern Hemisphere—damaging crops. This instability is straining coffee supplies at a time when global demand is steadily rising (Hoppe & Petroni, 2024).

To mitigate the physical risks involved in the proposed ESG strategies, ZUS Coffee could maintain internal practices such as managing food waste via “The Green Team” and by adhering to existing SOPs. In times when supply chains could be disrupted, resources would be scarce, and it is important for ZUS Coffee to reduce wastage and maintain a positive image in their contributions to the ESG landscape. More emphasis could be placed on the Social and Governance pillars when physical risks occur, as ZUS Coffee could work towards social causes such as improving the livelihood of farmers most exposed to this risk, or by pressuring supply partners to do more disclosure reporting. These efforts will help maintain a sustainable supply chain and enable ZUS Coffee to contribute to mitigating upstream risks effectively while engaging in ethical coffee beans sourcing (Global Coffee Platform, n.d.).

ZUS Coffee can diversify sourcing regions to avoid over-reliance on specific areas vulnerable to climate risks. Implementing digital dashboards for supply chain visibility can improve resilience by identifying potential disruptions early (Alicke et al., 2022). Additionally, the company can build partnerships with suppliers that adopt unique agricultural practices less dependent on land and climate restrictions, reducing long-term risks from climate change.

#### **6.4.2 Regulatory and Transition Risks**

Governments worldwide are introducing stricter environmental policies, such as carbon taxes and cap-and-trade schemes, which could raise operating costs. Companies not prepared to meet these standards may face compliance penalties or increased costs, especially as Malaysia considers expanding environmental regulations (Terrascope, 2024). Diving more into transition risk, it emerges when business models and regulations become outdated. For example, a shift towards eco-friendly packaging might render plastic-based practices obsolete, increasing costs for companies that fail to adapt. The push for sustainable alternatives can make previous strategies less effective or relevant in the market (ClientEarth, 2018).

ZUS Coffee can stay ahead by investing in green technologies, such as energy-efficient equipment and biodegradable packaging. Partnering with environmental organisations to meet or exceed local and international standards will ensure smoother regulatory compliance. Most importantly, setting internal guidelines to align or even outpace national environmental standards would allow ZUS Coffee to be compliant and adapt smoothly with any regulatory updates (Rade, 2024).

#### **6.4.3 Reputational Risk**

In today’s consumer-driven landscape, brand reputation plays a pivotal role in shaping business success. Companies that fail to meet environmental and social expectations often face backlash, including negative media coverage, consumer boycotts, and loss of trust, all of which can severely damage brand perception. Research indicates that even if a boycott does not directly impact sales, the reputational harm from negative publicity can trigger long-term consequences, such as diminished customer loyalty and declines in stock price (Bonini & Bové, 2014).

To minimise these reputational risks, ZUS Coffee can adopt several proactive measures. These include prioritising transparency and communication and regularly sharing sustainability initiatives with customers through campaigns and social media. As consumers are increasingly favouring brands that authentically communicate their environmental efforts and ethical sourcing practices,



publicising participation in local recycling programmes, for instance, can enhance the company's environmental image. Stakeholder engagement is equally important. By collecting feedback from customers and involving them in sustainability-related discussions, ZUS Coffee can foster goodwill and refine its practices in line with consumer values, ultimately building stronger loyalty and trust (Whelan & Fink, 2016).

## **7. Limitations and Further Research**

In this report, several limitations need to be considered for further research. Since the primary research from customer surveys relies on self-reported data, there is a potential for response bias due to subjective interpretations of the questions. The survey data collected might not be fully generalisable to the population as the data is through non-random sampling. Similarly, the interviews with ZUS Coffee's competitors are based on employees' best knowledge and willingness to share, it might not capture the full picture of the competitors' sustainability efforts.

Due to the limited data on ZUS Coffee's logistic operations, the proposed community partners noted that delivery arrangements require further discussion with the management team. Hence, this might impact the budget analysis and timeline. Lastly, the budget is based on estimated prices as of November 2024, which are subject to change in the future.

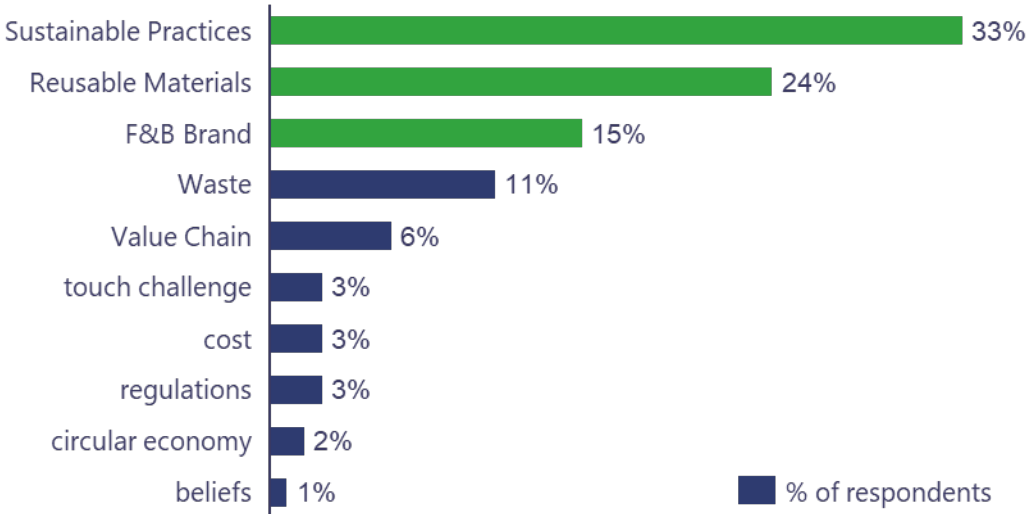
To improve this project, ZUS Coffee can liaise with the recommended community partners with specific details on quantity, frequency, and logistics. This clarity will help partners understand their roles and responsibilities in the partnership, fostering smoother coordination and more effective contributions. ZUS Coffee can also conduct a pilot project in several outlets to test the efficacy of the partnership before implementing it nationwide.

## 8. Appendix

### Appendix A: Consumer Survey Analysis

#### Appendix A1.

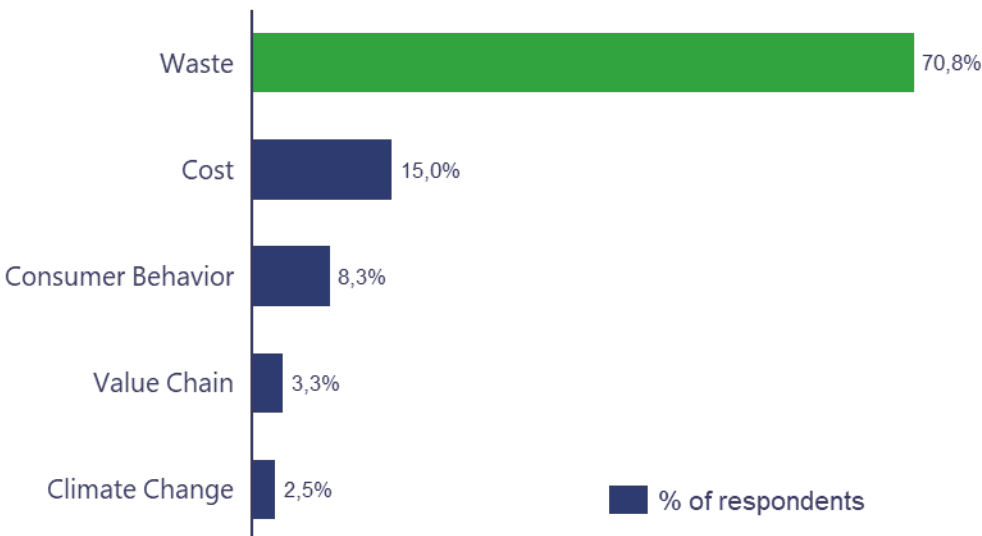
When it comes to sustainability within the F&B industry, what comes to your mind?



*Note.* Top initiatives from customers' open-ended questions are (1) Bring reusable lunch box or container, (2) Single use plastic or plastic waste, (3) Cease the usage of straws, (4) Impose charges for single use plastic bag, and (5) Various good and bad F&B brands in terms of sustainability (McDonald, Starbucks, etc.).

#### Appendix A2

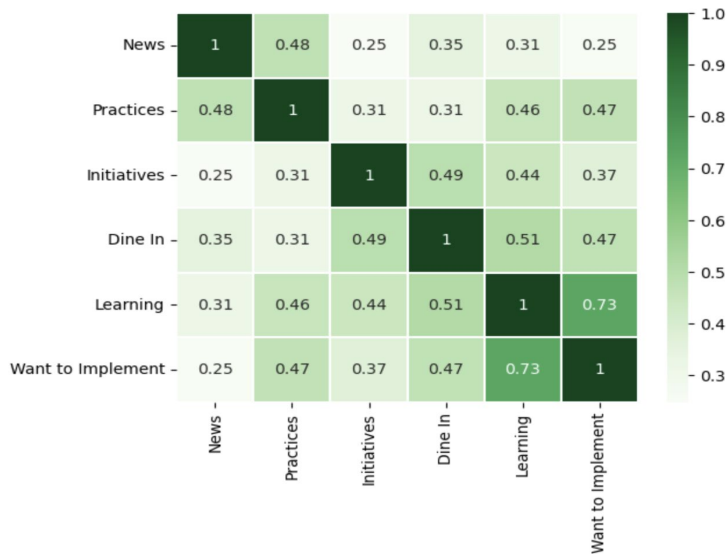
What do you think is the most pressing sustainability issue? [Open-ended]



*Note.* Out of the 85 respondents answering that waste is the most pressing issue, "food waste" was mentioned 52 times, while "plastic waste" was mentioned 38 times in their open-ended answers. Other pressing issues include the high costs related to implementing sustainability efforts, and the general consumer's behaviour and their sluggishness in adopting sustainability initiatives.

### Appendix A3.

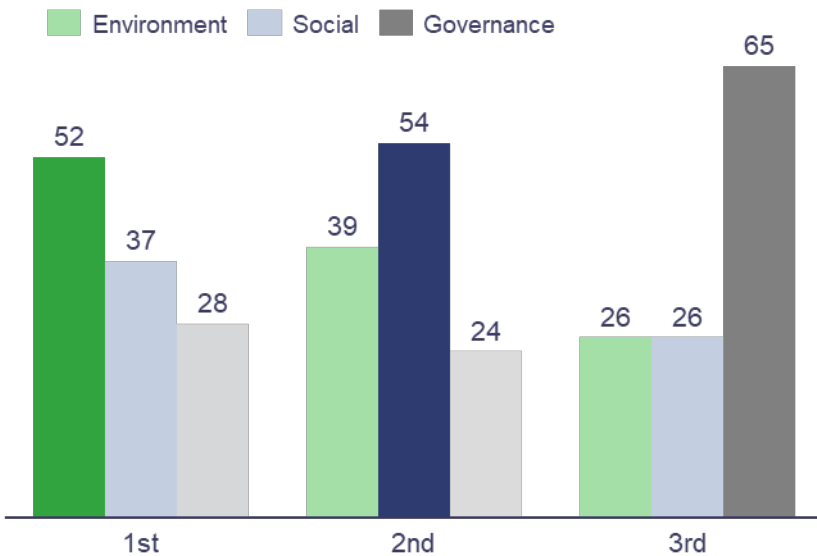
Select whether you disagree, are neutral, or agree to the following statements



*Note.* A strong positive correlation (0.73) is observed between customers’ willingness to implement sustainability and willingness to learn more about sustainability. Statements on label axes and their meaning: (1) News – I keep up with sustainability-related news, (2) Practices – I incorporate sustainability practices into my daily lives, (3) Initiatives – I think that F&Bs should implement sustainability initiatives, (4) Dine-In – Knowing that a restaurant/cafe practices sustainability makes me more likely to dine there, (5) Learning – I am open in learning more about how I can contribute to sustainability in my everyday choices, and (6) Want to Implement – I am open in learning more about how I can contribute to sustainability in my everyday choices.

### Appendix A4.

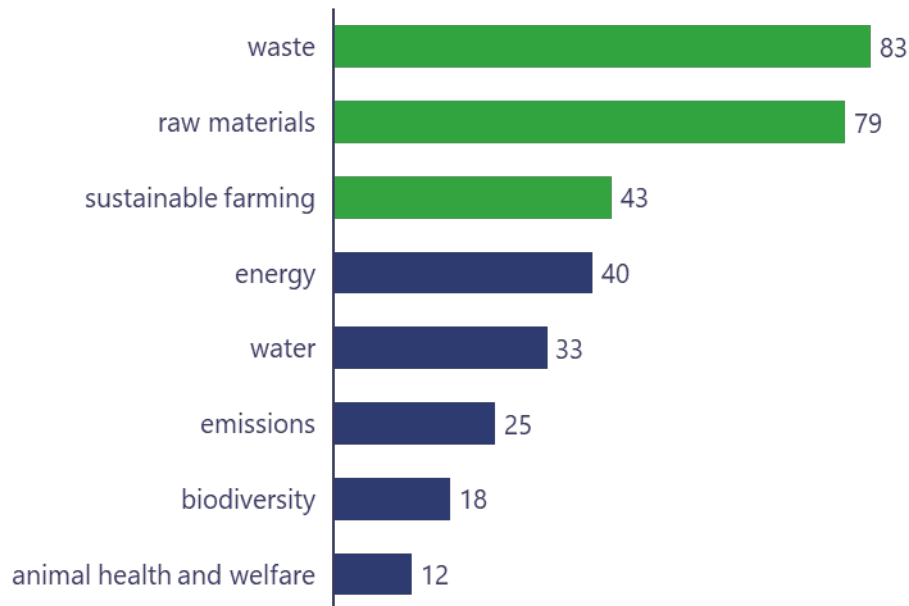
Rank the importance of E, S, and G within “ESG”



*Note.* Majority of respondents ranked Environment as the most important, followed by Social and Governance.

### Appendix A5.

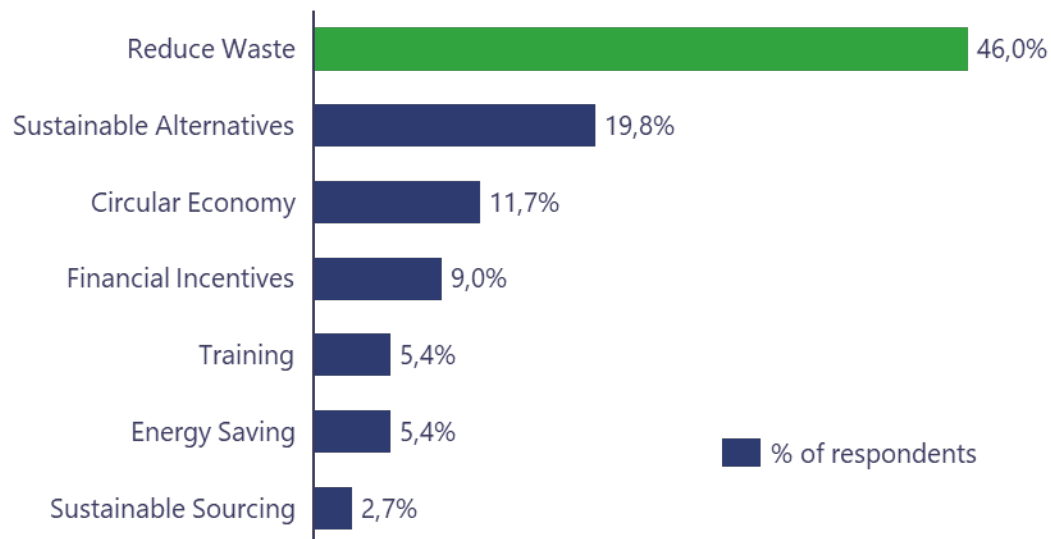
Please select the top 3 most important environmental issues that cafe shop owners can tackle from below.



*Note.* Waste and raw materials are two main environmental issues prioritised by consumers. Following that are sustainable farming and energy.

### Appendix A6.

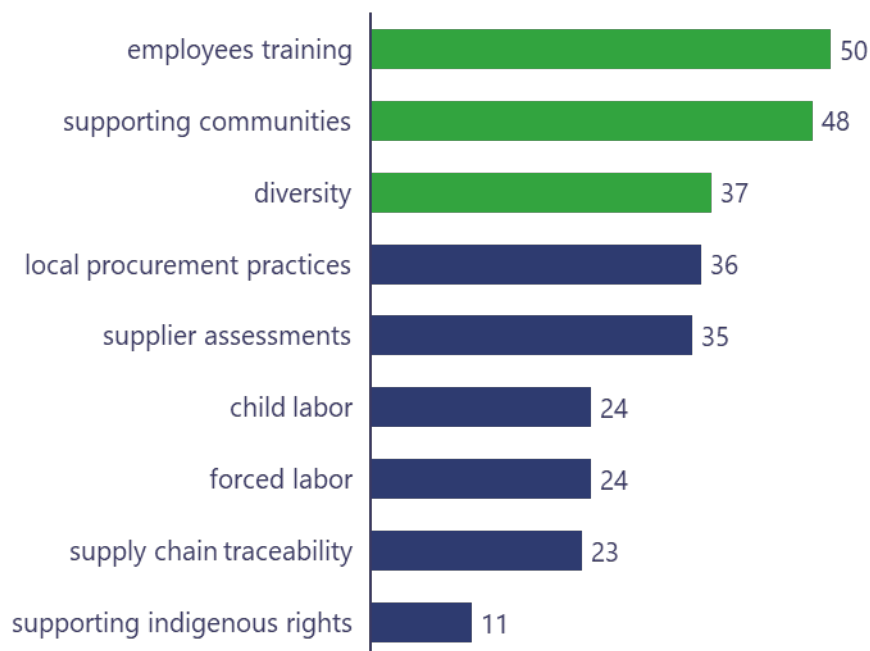
Imagine that you are a cafe shop owner, which initiative do you think is most impactful to implement within 'Environmental'? Please describe the initiative and its goals.



*Note.* Majority of customers (46%) are keen to have more initiatives to reduce waste. Top initiatives suggested by customers include: (1) Minimise plastic waste, (2) Use biodegradable materials, and (3) Use alternative packaging (e.g. paper cups).

### **Appendix A7.**

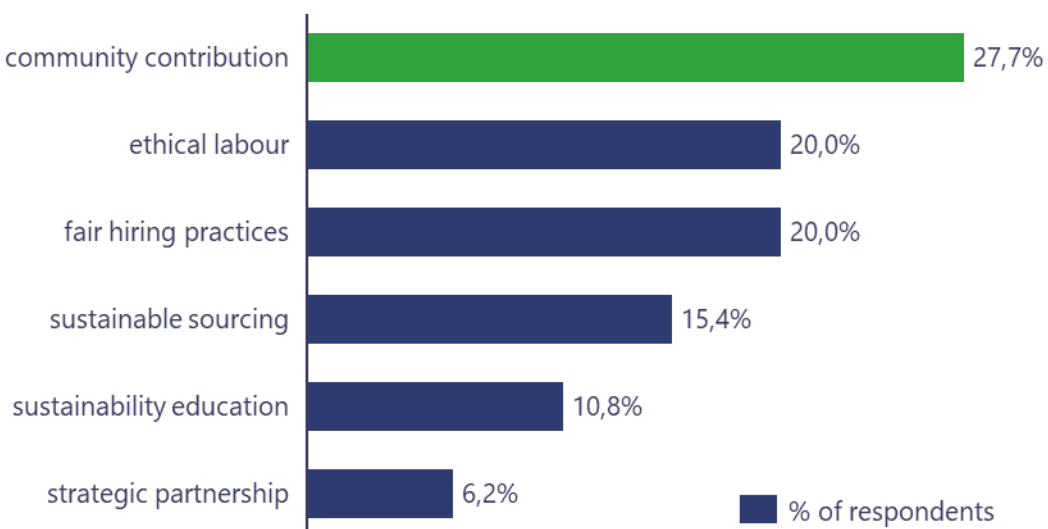
Please select the top 3 most important social issues that café shop owners can tackle from the following choices



*Note.* Employees training and supporting communities are two of the most important social issues. This is then followed by diversity, local procurement practices, and supplier assessment.

### **Appendix A8.**

Imagine that you are a café owner, which initiative do you think is most impactful to implement within 'Social'? Please describe the initiatives and its goals.



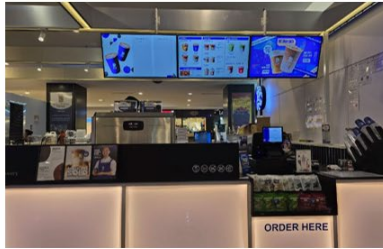


*Note.* Majority of customers (27.7%) emphasises on community contribution efforts. When asked to create social efforts, the top suggested initiatives include: (1) Food donation to minimise food waste, (2) Cleaning up the community, (3) Fair working environment, (4) No child labour, and (5) Diversity, Equity, and Inclusion.

## Appendix B: Environmental Initiatives References

### Appendix B1.

Johor Bahru Outlets Visited



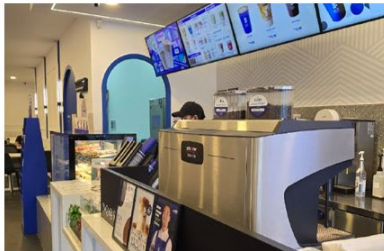
KSL City Mall, Grab and Go



Larkin Jaya, Shop House



Kebun Teh, Shop House



Tampoi Susur, Shop House



Mount Austin, Shop House



Aeon Mall Tebrau City,  
Hybrid Café

### Appendix B2.

Example of resources provided in select Welsh counties



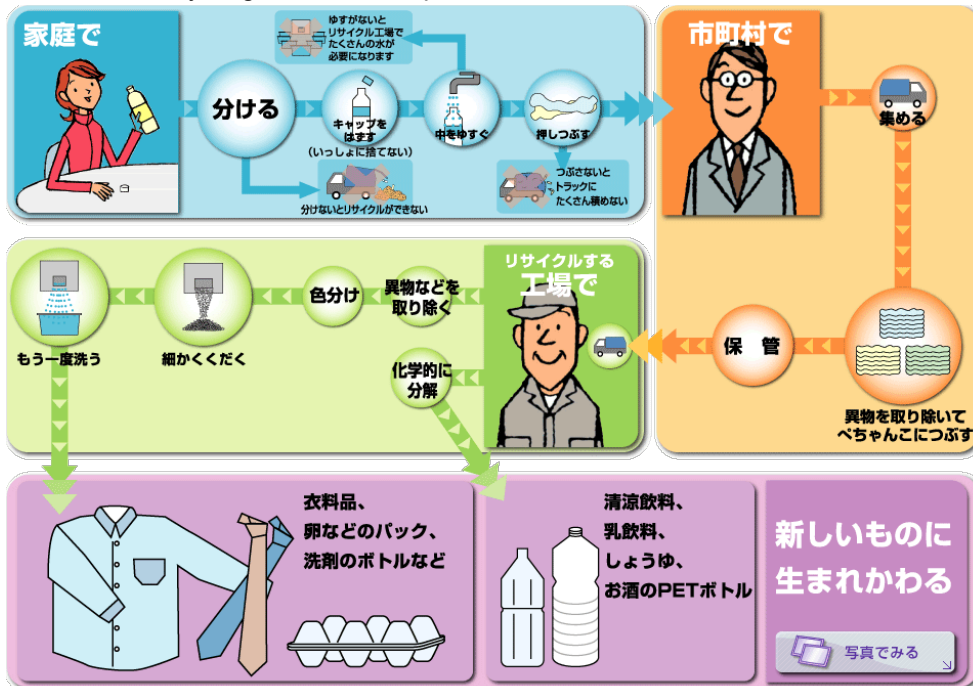
### Appendix B3.

Workplace waste management for collection in Wales



### Appendix B4.

PET Bottle Recycling Process in Japan



*Note.* PET bottles are separated from other household waste where caps and labels are to be removed, and bottles are to be rinsed before it is crushed vertically before disposing them. PET bottles will then be collected by the government-authorized body. Foreign matters from the collected PET bottles are removed before bottles are crushed vertically and stored. At the recycling plants, these stored PET bottles are unpacked, sorted, crushed, washed, and processed as raw materials for clothing, egg cartons, detergent bottles, etc. Some plants chemically break PET flakes into resin for PET bottles.



# Appendix B5.

## Waste Collection Schedule in Japan Hokusagi Town Association Region

**資源とごみの分け方・出し方** 保存版 1 ページ  
2019年10月発行

中野区 お住まいの地域の収集曜日を4ページ目及び折り込みチラシ「集団回収実施日一覧」で確認し、「○」に曜日を記入してご利用ください。

種類	出す場所(時間)	分け方(主なもの)	出し方
<b>古紙</b> (週1回) 古着・古布も回収 <b>木</b> 曜日	集団回収 集積場所 (朝8時まで)	中野区の古紙回収は、町会などの地域の方が「集団回収」で行っています。 新聞 (折り込みチラシ含む)   雑誌 (書籍含む)   段ボール   雑がみ (ティッシュの箱、お菓子の箱、チラシ、封筒、包装紙、紙袋、トイレットペーパーの芯、カタログ、パンフレット、牛乳パック など) 回収できない紙 ●加工された紙 ●銀やアルミのついた紙 ●感熱紙(レシートなど) ●ビニールコーティング紙 など ●汚れやにおいがついた紙 ●ビザの箱 ●洗剤やせっけんの箱 など →「燃やすごみ」へ	1. 古紙は、新聞・雑誌(雑がみ)・段ボールの種類ごとにまとめる。 2. 古紙はひも(ビニールひも可)でしばる。 古着・古布はビニール袋に入れる。 3. 「集団回収集積場所」に出す。 ※回収場所がわからない場合は、「ごみゼロ推進課」へお問い合わせください。 ☎ 03(3228)5555 オレンジ色の旗や幕が目印です(都合により出していない場合もあります)。 ☆雑がみは、雑誌に挟むか、紙袋に入れて出してください。
<b>びん・缶</b> ペットボトル (週1回) <b>水</b> 曜日	びん・缶 ペットボトル 集積所 (朝8時30分まで)	※びんのふたは、金属製 →「陶器・ガラス・金属ごみ」へ。 ※プラスチック製 →「プラスチック製容器包装」へ。 ※ペットボトルのキャップとラベルは →「プラスチック製容器包装」へ。 びん 飲食用のガラスびん   缶 飲食用のアルミ缶・スチール缶(ペットフード缶含む) 回収できないもの ●汚れのあるもの、油のついたもの ●破損して危険なもの(割れたびんなど) ●医薬品・化粧品びん →「陶器・ガラス・金属ごみ」へ	1. 水で軽くすすいで、汚れを落とす。 2. 「びん・缶・ペットボトル集積所」に出す。 ○びんは黄色のケース、缶は青色のケース、ペットボトルは回収ネットに直接入れてください。 回収日の前日の午後には「回収容器」を設置します。近隣の方の迷惑にならないよう、静かに入れてください。 ペットボトルについては、お近くの「ペットボトル破砕回収機」を優先してご利用ください。詳しくは2ページへ。
<b>プラスチック製</b> 容器包装 (週1回) <b>月</b> 曜日	ごみ集積所 (朝8時まで)	「プラスチック製容器包装」とは プラスチック製の「容器(入れ物)や「包装(包み、袋)で、中身の商品を取り出した(使用した)後に不要になるものです。 ボトル類 シャンプー、洗剤、飲料、調味料などのボトル   袋類 お菓子・パン・野菜、レジ袋などの袋   バック類 卵・豆腐・果物などのバック   カップ類 プリン、ゼリーなどのカップ 容器類 市販の弁当、カップ類などの容器   トレイ・ラップ 肉、魚、野菜などのトレイ・ラップ   キャップ ペットボトル・スプレー缶などのキャップ   緩衝材 発泡スチロール・果物ネットなどの緩衝材	1. 水で軽くすすいで、汚れを落とす。 2. ふたのできる容器、または中身の見える透明か半透明の袋に入れる。 3. 「ごみ集積所」に出す。 ○資源として回収するので、中身を空にし、汚れを落としてから出してください。 ○二重袋、三重袋にはしないでください。 ○バックやラップについたシール(値段・材料表示など)をはがす必要はありません。 ※汚れが落ちないものは「燃やすごみ」へ。 ※プラスチックでも容器包装以外の品物は「燃やすごみ」へ。
<b>燃やすごみ</b> (週2回) <b>火</b> 曜日 <b>金</b> 曜日	ごみ集積所 (朝8時まで)	プラスチックでできた製品 歯ブラシなどの日用品、おもちゃ、CD・ビデオテープ(ケース含む)など コム・皮革製品 かばん、くつ、長ぐつ、ホースなど 油、汚れやにおいがついた紙 ビザの箱、洗剤の箱など 生ごみ   紙くず   紙おむつ   食用油 ※食品用あり(2ページへ)   汚れた布類   50cm以下剪定枝	1. ふたのできる容器、または中身の見える透明か半透明の袋に入れる。 2. 「ごみ集積所」に出す。 ○生ごみは水分を切ってください。 ○食用油を捨てる場合は、布や紙にしみこませるか、市販の凝固材で固めるなどしてください。 ○竹串などは危険のないように包んでください。 ○布団・ベッドパッド等敷物は「粗大ごみ」へ。 ★大量にごみを出す場合(臨時ごみ) 家庭から出るごみの場合でも、植木の剪定や引越しなどで大量(45ℓの袋で5袋以上)に出す場合は有料です。事前に「清掃事務所」にご相談ください。 清掃事務所 ☎ 03(3387)5353
<b>陶器・ガラス</b> 金属ごみ 月に2回 第2・第4 <b>水</b> 曜日	ごみ集積所 (朝8時まで)	陶器・ガラス・金属類 茶碗、湯のみ、グラス、鍋、フライパン、アルミホイル、針金ハンガーなど 割れた蛍光灯・電球 (ケースなどに入れたもの) ※割れていない蛍光灯は集団回収へ(2ページへ)。 小型の家電製品 (一辺が30cm以下) ※食品用あり(2ページへ)   金属部分が外せないプラスチック製品   使い捨てカイロ	危険物 スプレー缶・カセットボンベ・ライター 缶には穴を開けない! 水銀使用の体温計・血圧計 危険のないように包む! 1. ふたのできる容器、または中身の見える透明か半透明の袋に入れる。 2. 「ごみ集積所」に出す。 危険物の出し方にご注意ください これらの危険物は、それぞれ他のごみとは別の袋に入れ、中身が何かわかるよう表記して出してください。 収集作業員等のけがや車両火災等の原因になります。分別にご協力をお願いします。

★祝日も収集します(祝日が日曜日の場合を除く)。年末年始の収集日については、「区ホームページ」や「なかの区報」、「ごみ分別アプリ」などでお知らせします。

**粗大ごみ(有料)** 事前申込制

家庭から出るもので、一辺の長さが30cmを超える家具や家電製品など
 
 ●粗大ごみ受付センター(月～土/午前8時～午後7時)  
 ☎ 03(5715)2255  
 ※区ホームページからも申し込みできます。4ページもご覧ください。

Note. Bottles, cans and PET bottles are collected every Wednesday. (Kitasagi Town Association, n.d.)



## Appendix B6.

Cardboard Boxes Observed at Johor Bahru Outlets



## Appendix B7.

Kebun-Kebun Bangsar – Lorong Bukit Pantai, Bangsar, Kuala Lumpur 59100




**Note.** Urban community vegetable farm of 2.5 acres. Free entry for visitors, accepting free public donations. Home to live animals like chickens and goats, as well as flora and fauna. Crops grown in the garden may be donated to soup kitchens such as Dapur Jalanan Kuala Lumpur.

## Appendix C: Social Initiatives References

### Appendix C1.

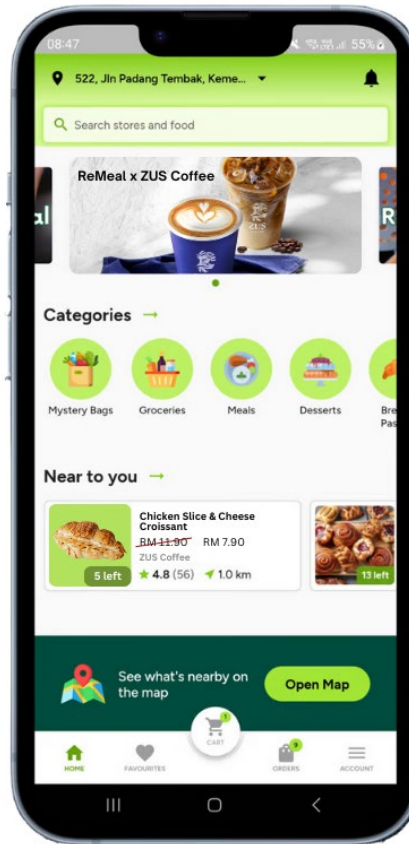
#### Games Recommendations

<b>Games</b>	
<p>Spin and eat challenge, in which participants take food that the arrow points to (<a href="#">link</a>)</p>	<p>Glide the ball to the holes challenge, in which participants will get free food and beverages depending on the holes they can fill in</p>
	
<p>Throw a pingpong ball to a bowl and take food or beverages based on where it lands on (<a href="#">link</a>)</p>	<p>Colour matching challenge, a prize, either food or beverage, is given for each colour that matches the ones in the box</p>
	
<p>Bottle flip challenge, in which participants can redeem food or beverages for every successful flip</p>	<p>Blow the cup challenge, in which the further the blow, the more attractive the prize is</p>
	



## Appendix C2.

### ZUS Coffee mockup on the ReMeal app



### Sellers guide to start selling on the ReMeal app

## Simple Steps To Start Selling.

- 1 Join the Seller Waitlist below.** 📌  
We will contact you when we are launching in your area.
- 2 Log in to the Seller Portal.**  
When your application is approved, we will email you a link to activate your account.
- 3 Upload your documents to verify your business.**  
What documents we need depends on your company type.
- Setup a Payout Method.**  
We partner with Stripe to handle the payouts to your bank account. With Stripe you can get paid on a daily basis. If you do not want to create a Stripe account, you can provide us with your bank details. However payouts will instead be made on a monthly basis.
- 5 Add your products and start selling.**  
Download the Seller App on your device and join the fight against food waste!

### Appendix C3.

#### PaperBox Malaysia booking / order form

Our Partner Vendors (Choose 1 per order)

Choose ▼

Full Name \*

Your answer


Contact Number (ie: 60123456789) \*

Include country code ("60....")


Your answer

Collection Method \*


*Deliveries are not available for Hotel Buffet/Catering/Mix Rice. (Deliveries are only for within Klang Valley)*



Delivery (RM 12 within Klang Valley <20km ; RM 20 for distance over 20km)



Self Pick Up



Self-Arranged Delivery

Address for delivery (if chose Delivery - RM 12)  
Ignore if Self Arranged Delivery / Self Pick Up

Your answer

Next Clear form

Note. (Paperbox, n.d.)

## Appendix D: Cost Breakdown and Key Assumptions

### Appendix D1.

Cost breakdown for all outlets to implement the recommended Environmental initiatives

Cost Breakdown				
	Recommendation	Item	Fixed Costs	Variable Costs
Packaging Waste	Cardboard Boxes	-	-	-
	Milk Carton	White bin bag	-	\$ 111.60
	PET Cups	Recycling bin	\$ 4,730.35	
		Black bin bag	-	\$ 78.57
	Workforce Development	-	-	-
Careton	-	-	-	
Food Waste	Grounds to Grow	-	-	-
<b>Monthly Recurring Costs</b>			<b>\$</b>	<b>190.17</b>
<b>Initial Expense</b>			<b>\$</b>	<b>4,920.52</b>

Note. All calculations are done under the following assumptions:

- 248 target stores within KL/Selangor region. 82 (33.3% of above) target stores for the collection of PET Cups as Grab & Go outlets are excluded.
- No transport costs are incurred in the delivery and collection of relevant resources.
- Costs of bin bags for all outlets are based on weighted and projected sales volumes using existing historical data:
  - Assumptions are conservative for the size and volume of bin bags to project the amount of flattened Milk Cartons or PET Cups that can be stored.
  - White bin bags are used for colour coding to separate regular trash and recyclable milk cartons during the drink's preparation stage.
- The cost of recycling bin is based on a rough estimation of Chinese manufactured bins and shipping costs, as domestically produced bins are more expensive. Alternative sourcing is encouraged if cheaper options are available to the ZUS Coffee team.

### Appendix D2.

Recommended allocation of remaining budget for Social Initiatives

Budget Allocation				
	Recommendation	Item	Recommended Weights	Dollar Amount
Food Banks	Rescue Bites	-	-	-
	Sharing Abundance (Bi-annual Pop-ups)	Logistics	40%	\$ 2,000.00
		Marketing Expenses	10%	
		Administrative Expenses	5%	\$ 250.00
	Staffing	-	-	-
<i>Administrative expenses</i>			45%	\$ 2,250.00
			<b>Remaining Budget</b>	<b>\$ 5,000.00</b>

Note. With a monthly budget of RM10,000, the remaining funds could be split in the following way for the cost-free or infrequent social initiatives.

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