Eco Action Day 2019
Sustainable Waste Management in the Year Towards Zero Waste
Southeast Asia is experiencing rapid growth in today’s globalized world. According to the Organisation for Economic Co-operation and Development (OECD), the region is expecting to enjoy 5.2% of economic growth between 2019-2023. But this growth also results in adverse environmental impacts, such as increased energy consumption to waste creation.

Singapore, a small island city state in the heart of the region, sends about 200,000 tonnes of solid waste and incineration ash annually to its only offshore landfill, Semakau Island. At its current rate, it is estimated that the island could reach its full capacity one decade earlier than expected, in 2035.

This diminishing landfill capacity is made worse with Singaporeans’ heavy reliance on single-use plastic for food and packaging. Fortunately, various stakeholders have acted to address this.

Consumers generally remain apathetic to the issue, but there’s been a gradual rise in interest. For example, over the past year, more Singaporeans are using metal straws and their own containers when consuming or buying food. The movement is particularly strong among younger Singaporeans who resonate more strongly with the issue.

Non-governmental organizations (NGOs) have been active on this front. For example, Zero Waste Singapore initiated the Save Food Cut Waste and the Bring Your Own programmes to save food and reduce waste. The latter campaign reduced over 2.5 million pieces of plastic disposables.

Companies have come a long way in evolving Corporate Social Responsibility (CSR) in their practice. Instead of “one-off” initiatives, CSR is now more deeply embedded in companies’ business models. These include creating and monetizing innovative eco solutions, and using its influence to trigger conversations on environmental sustainability.

Ricoh takes CSR one step further through Creating Shared Value (CSV) initiatives which seeks to solve social issues by offering new value developed through our business activities. CSV capitalises on its technology, products and services, and human resources to create solutions to simultaneously achieve economic goals and address social issues for long term growth. But, can more be done?

At Ricoh, we believe that the threat of climate change is greater than ever and we see a pressing need for society to think seriously about positive climate action.

In line with the United Nations’ Sustainable Development Goals (SDGs), Ricoh strongly believes that businesses should play a part in improving the quality of life, driving sustainability, and solving social issues.

Resolving social issues through business is vital to corporate prosperity, and companies that fail to bring the SDGs to fruition are unlikely to survive.

We want to enhance efforts on all fronts to achieve the SDGs and hope that everyone will join us in this mission for a better tomorrow.
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About Eco Action Day

Held annually since 2007, Eco Action Day is a national public awareness campaign organized in partnership with key NGO, government and private sector partners in Singapore.

It is held on 5 June every year to commemorate the United Nations Environment Program’s World Environment Day, which seeks to raise global awareness on the need to take positive action.

Every year, Ricoh, along with various supporting partners, engages the wider public and its stakeholders to take steps to reduce their impact on the environment.

The campaign aligns with the United Nations Sustainable Development Goals (SDGs), which address present global challenges. This year’s campaign tackles Goal 13 – Climate Action, which urges people to take urgent actions to combat climate change. An inaugural seed distribution to the local community was also launched.

Ricoh carried out three key activities to promote sustainable resource management and reduce the negative environmental impacts. These include public roadshows, a Roundtable, and the finale ceremony at Republic Polytechnic.

Over its 13-year history, more than 1,500 organizations, including multinational corporations, government agencies, private companies and tertiary institutions have participated in Eco Action Day.

For further information, please visit the Eco Action Day website, or read more from the official opening press release.

About Ricoh

Ricoh is empowering digital workplaces using innovative technologies and services enabling individuals to work smarter. For more than 80 years, Ricoh has been driving innovation and is a leading provider of document management solutions, IT services, communications services, commercial and industrial printing, digital cameras, and industrial systems.

Headquartered in Tokyo, Ricoh Group operates in approximately 200 countries and regions. In the financial year ended March 2019, Ricoh Group had worldwide sales of 2,013 billion yen (approx. 18.1 billion USD).

For further information, please visit www.ricoh.com

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In the month of April and May, school volunteers together with Ricoh's team of experts visited various educational institutions to engage young people in environmental issues through roadshows.

Historically, Ricoh has used roadshows to promote and gain awareness on the campaign and the issue of positive climate action. This year's roadshows were held from April 16 - 18 at Republic Polytechnic, and May 8 - 9 at Ngee Ann Polytechnic.

The roadshows helped to promote awareness of the Eco Action Day Campaign and encouraged youths to adopt eco-friendly habits. It was heartening to see youths pledging to be more environmentally friendly.

Ricoh employees also rallied for individual pledges, garnering more than 400 pledges over the two roadshows.
Bringing The Brightest Minds Together At The Roundtable

Breakout Session #1: The Role Of Manufacturers

Discussion Leader: Mr Anirban Mukherjee, Director of Global Packaging of Asia Pacific, Johnson & Johnson Consumer

Summary of Points:
• Manufacturers should rethink packaging design and incorporate elements of recyclability
• Manufacturers have a responsibility when it comes to the type of chemical and material that goes in the creation of a product and/or packaging
• Companies need to find ways to ensure products and packaging have a longer shelf-life and how they can be designed for repairability

Currently, product packaging is designed for the sole purpose of convenience for consumers.

Participants shared that while packaging design affects consumers in terms of utility, it also impacts the environment based on its recyclability. It is vital for manufacturers then to rethink design packaging to balance both aspects.
Manufacturers need to relook at the materials and substances used for packaging. For instance, both PET and PVC look identical and are used widely as packaging material. However, PVC has a contaminant which affects its recyclability.

Manufacturers therefore need to be aware of the environmental implications of the materials used in creating these packaging and choose substances that do not have such contaminants.

Besides packaging materials, participants also agreed on the importance of product designs and how designs should aim for a longer shelf-life and with repairability in mind. This will help to maximise the lifespan of a product, and hence, reduce the need to keep using resources to create new products.

Ricoh has grown increasingly active on this front. The company reduces carbon emissions via investments in electric vehicles, utilizing more renewable energy in its offices, and using more recycled materials by reducing input of new resources in product manufacturing and introducing new returnable eco packaging. It also plans to launch a new manufacturing plant in 2020 that is equipped with environmental features.

In closing, Mr Mukherjee concluded that there isn't a one-size-fits-all solution when it comes to packaging. Instead, recycling and sustainability is the “job of an ecosystem.”


Discussion Leader: Mr Mohit Grover, Executive Director of Deloitte Singapore

Summary of Points:

• Businesses should rethink how packaging can be made environmentally friendly by using bio-degradable materials or using returnable packaging
• There is an absence of circularity of the economy in Singapore and the low pricing of recyclable material hampers recycling efforts since people perceive recycling to be of little or no value
• The idea of reverse logistics should be empowered to contribute to the circular economy

Mr Grover mentioned that while businesses and consumers play an important part in environmental consciousness, for greater results to be achieved, a broader ecosystem should be established in Singapore. In other words, Singapore needs to establish eco-friendly business models in order to progress in environmental sustainability.

Several companies have begun developing eco-friendly business models by incorporating sustainable practices such as recycling and creating a sharing economy. These strategies benefit both the company and the environment in terms of saving costs when resources are reused.

One such company is Style Theory, a fashion company which offers apparel rental services. This creates a circular economy which encourages the sharing of clothes and ultimately reduces consumption.

Similarly, Ricoh’s business model is heavily centered on research on resource conservation and energy creation. The company dedicated its Eco Business Development Center, a research facility for innovative eco solutions, as an avenue for research. This has led to groundbreaking solutions such as oil extraction from waste plastics and dry washing, among other things. It also successfully developed a dye-sensitised solar cell, which has high-power generation performance and efficiency under weak lighting conditions.

Another key point raised was the declining reverse logistics sector that helped collect and recycle waste. The system consists of rag-and-bone men (affectionately known by locals as Karang Guni) who contributed greatly to recycling by going door-to-door to collect used goods from residents.

Mr Grover believes that it is crucial to revive and empower this declining trade through means such as popular online delivery services.

In order for reverse logistics to succeed, it must be supported by a societal culture of recycling which is still lacking in Singapore today.
Discussion Leader: Mr Tan Meng Dui, CEO of National Environment Agency (NEA)

Summary of Points:

- Singapore has announced that it will implement a policy of extended producer responsibility (EPR) for e-waste and plastic. The policy will shift the responsibility of managing waste to companies. This entails being responsible for the collection, treatment and disposal of waste
- There is room for improvement in recycling waste in other sectors
- The government is looking in reviving the reverse logistics sector by installing infrastructure to recycle aluminium cans and plastic bottles
- Mr Tan announced that Singapore will be implementing Extended Producer Responsibility (EPR) later in 2019. With the EPR in force, companies will be responsible for the collection, treatment and disposal of their products after usage. This will compel companies to be accountable for their waste and encourage them to extract maximum value from their waste before turning to new materials.
- In an attempt to encourage greater recycling efforts, NEA has also announced that they will be introducing reverse vending machines that provide consumers with discount coupons in exchange for every five aluminium cans and plastic bottles. Its first reverse vending machine can be found in Waterway Point’s FairPrice Finest outlet.
- Mr Tan reported that Singapore is doing well in terms of construction and demolition waste. For example, sand has achieved a recycling rate of almost 100%.
- However, households and consumers can do better in recycling plastic waste. To achieve this, there needs to be a shift in attitudes towards recycling. This is where governments and business can step in to provide incentives and penalties to nudge consumers in the right direction.
Breakout Session #4: Social Behaviour

Discussion Leader: Ms Pek Hai Lin, Manager of Zero Waste Singapore

Summary of Points:
• Consistent infrastructure needs to be put in place to avoid confusion
• There is a need for consumers to be educated on the recycling process
• Repositioning recycling to be artisanal, trendy and unique so consumers will be more willing to hop onboard the bandwagon
• It is important to encourage consumers to repair and fix broken products while making it affordable to do so

Currently, inconsistent recycling infrastructure is put in place at shopping malls and residential estates. Recycling bins in malls look different from those at HDB estates. This may be confusing for the average resident who wants to recycle.

It is important to put in place similar bins and streamline the recycling system to reduce confusion among members of the public and increase the convenience of recycling.

Consumers should also be educated on the type of waste that can be recycled, and how they need to be 100% clean when disposed. Not doing so reduces the effectiveness of the recycling process since the recyclables are contaminated.

Ms Pek suggested that the recycling efforts could also be enhanced if it is seen as artisanal, trendy and unique.

For instance, metal straws have started to become trendy amongst youths in Singapore, reducing the need and use for plastic ones. National University of Singapore (NUS) took the opportunity to jump on this movement to ban the use of plastic straws throughout its campus.

It is necessary to find ways to make the repairing of products affordable. When faced with a spoilt product, the general trend for most Singaporeans is to simply throw away the old and buy a new device rather than turning to repair shops to fix it.

This results in more resources being used up when a consumer buys a product and could possibly waste a sizeable amount of spare parts that otherwise may still be in good working condition.

Mr Mohit shared his personal experience in India, where there is a culture for users to constantly reuse and repair products to maximize the value of the product. Repair costs are kept low in India, making it affordable for consumers to fix their devices and hence encourage the reuse of products.

Overall, there must be constant conversations and innovation to inspire the next green movement. More needs to be done to translate these actions into reality and adopt these green habits as a lifestyle.
Breakout Session #5: Designing For A Circular Economy

Discussion Leader: Mr Tan Szue Hann, Managing Director of Miniwiz

Summary of Points:
• Greenhouse gas emissions should be accounted for when emitted into the environment in the form of legislation
• Incentives need to be provided to balance the negative reinforcements arising from the legislations
• Education is key to enforce the recycling message for businesses for sustainable practices to be successful

Mr Tan suggested that Singapore should shift more of the environment responsibility to companies and manufacturers to reduce carbon, nitrogen and phosphorous emissions. This can be done by legislating carbon taxes which forces the company to pay for the greenhouse gases they emit.

However, positive reinforcement schemes should supersede negative reinforcement to encourage positive behavioural change.

To do this, Mr Tan suggested using rewards to incentivize consumers and companies towards more environmentally sustainable behaviour for a healthy change. One example is the reverse vending machines which incentivizes consumers to recycle frequently.

Mr Tan also suggested that school curriculum should incorporate information about the circular economy, so students can better learn and understand about its importance with regards to sustainability efforts in Singapore.

Singapore must continue to find unique and innovative ways to close the loop in the circularity of waste.

The construction sector in Singapore has for example, managed to achieve a recycling rate of almost 100%. This could set precedence for other sectors to strive towards similar recycling goals as well.

It is crucial that we continually re-examine our resources and relook at our recycling system.

Creating solutions for a circular economy in Singapore is also a key focus of Ricoh.

As such, Ricoh plans to manufacture new machines with existing machine parts that have been retained as part of its refurbishment line and new business model.
Discussions at the Eco Action Day Roundtable 2019 centered around one question: “How can we find innovative ways to close the loop in a circular economy?”

Takeaways include:
- There is a need to raise awareness for manufacturers to create recyclable packaging
- Businesses should be incentivized to create products for a circular economy
- The government needs to implement impactful policies for consumers and business to achieve sustainability
- Singapore needs to undergo a cultural mindset shift such that green habits become the norm in daily lives
- All stakeholders must come together to design for a greater circularity of the economy

Mr Robin Hicks, Deputy Editor of Eco-Business and moderator of the panel discussion said: “The amount of waste generated annually in Singapore has risen 40-fold since the 1970s, but recycling rates have not kept pace. Today’s discussion raised many excellent ideas for how Singapore can gradually shift towards becoming a true zero waste nation where incineration is the last resort, and we hope participants in today’s session will take these solutions back to their homes, organizations and communities and put them into action.”

Mr J.D. Kasamoto, General Manager of Service & Environment Division, Ricoh Asia Pacific, who also presented at the Eco Action Day Roundtable, added, “Ricoh has embarked on several research initiatives in resource conservation and energy creation. Through such investments and R&D, we hope to contribute to a better tomorrow in the communities around the world.”

Mr Tan Meng Dui, CEO of National Environment Agency (NEA), concluded: “To achieve our goal of becoming a zero-waste nation, this cannot solely be a government-driven effort, but a collective one involving the Public, Private and People partnership. Only when the community come together can society progress towards the future of zero waste.”

The Roundtable was a fruitful discussion and it is with hope that leaders returned to their organisations with renewed perspectives and convictions about recycling to achieve better results in the years to come.

To find out more, please watch the summary video at Eco Action Day Roundtable 2019 or read more here.
Ending with a Bang

Three months on, Ricoh concluded its campaign at Republic Polytechnic’s Rain Garden on July 23, 2019. Around 30 people attended, including Guest-of-Honour Dr Amy Khor, Senior Minister of State in the Ministry of the Environment and Water Resources and Health.

The finale was officiated by Dr Khor, who participated in the tree planting observance and witnessed Ricoh’s donation of a chengal wood arbor and bench made from used toner cartridges.

It also marked the kick-off of Ricoh’s community seed distribution initiative which supports Singapore’s “Grow Local” strategy and the 30-for-30 vision to locally produce 30% of Singapore’s nutritional needs by 2030.

Heartened by the pledges made, Dr Khor said: “The annual Eco Action Day campaign is a platform to remind all of us, be it individuals or businesses, that we have a significant role to play in the battle against climate change.”

She added: “I urge everyone to do your part for the environment. Through our collective efforts, we can create a sustainable Singapore for future generations.”

Director and Senior General Manager of Digital Workplace Marketing at Ricoh Asia Pacific, Mr Yuji Hiruma concluded, “We are thankful to all who pledged during Eco Action Day and hope that they will continue this spirit of going green even as we conclude this year’s campaign.”

“Actions as simple as practicing the 3Rs – Reduce, Reuse, and Recycle – can go a long way towards creating a circular economy. While the campaign may have ended, at Ricoh, we believe in driving sustainability for the future,” he concluded.

For more information on the finale, please visit this link.
Ricoh launched the Eco Action Day with clear objectives in mind: Get the public and businesses in Singapore to think more seriously about positive climate action.

Companies that participated this year include: PacificLight Power, Mitsubishi Electric, Singapore Pools, Eco Business, and Sunseap Group, among many others.

On a regional scale in Asia Pacific and Oceania, more than 800 organisations and close to 4,500 individuals pledged to go green in the newly renamed “Ricoh Global SDGs Action” initiative.

This initiative encourages Ricoh employees around the world to think about how they can contribute towards achieving the SDGs. It also included a “Green Safety Month” campaign in Thailand, with activities such as a canal clean-up, a pledge outreach programme that boosted awareness of environmental management issues, and the planting and distribution of 1,150 trees to aid biodiversity conservation efforts within the community.
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