Education Outreach on Plastic Waste in City Square Mall
Problem

- Plastic waste generated in Singapore has been on a rise for the past 10 years
Problem

• Too many reusable bags offered in the market, given out by retailers, during events etc.
• To have a lower carbon footprint than a plastic bag, it has to be used at least 11 times
Objective

• To encourage waste minimization by promoting the usage of reusable bags thus reducing the amount of plastic bags used
Planning

Bags are collected in school

Sorted out according to size

Distribution to public at City Square Mall and campaign
The Outreach
Posters

ENVIRONMENTAL IMPACT OF PLASTICS

2 MAIN TYPES OF PLASTIC BAGS USED IN SINGAPORE
- High Density Polyethylene (HDPE) plastic bags
- Low Density Polyethylene (LDPE) bags

MANUFACTURING PLASTIC BAGS CONSUMES RESOURCES!
- Approximately 37,000,000 kilograms of crude oil and 12,000,000 kilograms of natural gas were required to manufacture the 3,000,000,000 plastic bags used in Singapore in 2011

Burning of Plastic is Toxic!
- Waste management is done primarily through incineration at one of Singapore's four waste-to-energy plants.
- Burning plastic waste results in the emission of harmful gases, incineration plants are equipped with facilities to filter out these harmful gases before they are released into the atmosphere.
- However, the process consumes a lot of power.

LIMITED LANDFILL SPACE AVAILABLE!
- After incineration, the ash residue is sent to Pulau Senkaku for landfilling.
- Approximately 200,000,000 kilograms of cold waste and ash are sent to Pulau Senkaku each year.

PLASTIC BAGS OIL MARINE LIFE!
- Plastic bags cannot be digested or passed by an animal; they stay in the gut, causing pain and certain death.
- When dead animals decay, the bags are freed and often eaten again by other animals, who mistake them for jellyfish.

Source: Singapore Environment Council

HOW ARE PLASTIC BAGS USED IN SINGAPORE?

2012 SURVEY FINDINGS ON PLASTIC BAG USE IN SINGAPORE
- Participants: 2,966 Singapore Citizens or Permanent Residents (≥ 15 years old)
- Household Type: Housing Development Board units, private condo, landed property
- Geographical Distribution: Island wide

AT LEAST 10 BAGS USED PER WEEK!
- 73.2% of respondents indicated that they obtained at least 10 bags a week.
- 4.3% of respondents indicated that they obtained more than 20 bags per week.

HOW PLASTIC BAGS ARE USED!
- 88.3% of respondents indicated that they would reuse the plastic bags to dispose general waste.
- 8.3% would recycle the bags.
- 6.3% of participants said that they would throw the bags away without reusing them.

WHY NOT USE RE-USEABLE BAGS?
- 32% of respondents never used reusable bags for shopping.
- Most cited reasons for not using reusable bags were that plastic bags were provided (50.8%).
- 22.9% mentioned that they did not have reusable bags with them when they shop.
- 27% forgot to bring their reusable bags with them when they went shopping.
- 22.2% consciously took plastic bags to dispose of their household waste, or for reusing.

Source: Singapore Environment Council

REDUCE PLASTIC BAG USE
REUSE YOUR REUSEABLE BAG

ARE YOUR REUSEABLE BAGS WELL USED?
- According to a 2011 study by Britain’s Environment Agency, for a standard reusable bag to have a lower carbon footprint then a plastic bag, it must be reused at least 11 times.
- A cotton reusable bag needs to be reused at least 131 times.

SINGAPORE’S PLASTIC WASTE ON THE RISE!
- Plastic waste generated in Singapore has been on a rise for the past 18 years.
- In 2014, Singapore generated 889,000,000 kilograms of plastic waste.
- Singapore Environment Council (SEC) 2014 Survey: Singapore uses 3,000,000,000 plastic bags a year.

LOW RECYCLING RATES OF PLASTIC WASTE
- In 2011, only 9.3% (or 80,000 tonnes) of the 869,000 tonnes of plastic waste generated were recycled.
- In comparison, paper and cardboard had a recycling rate of over 39% while that of construction debris was close to 100%.

Source: Singapore Environment Council and National Environment Agency

GO GREEN! GET AN ECO TOTE BAG AT CITY SQUARE MALL TODAY!
- Eco tote bags are available for sale at City Square Mall Level 2, Customer Service Counter to encourage shoppers to reduce the use of plastic bags.

Supporter: City Development Limited
Event Partner: SingPost
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ABOUT PLASTIC WASTE IN SINGAPORE

1. Singapore uses approximately 3,000,000,000 plastic bags annually.

2. 37,000,000 kilograms of crude oil and 12,000,000 kilograms of natural gas are needed to manufacture these plastic bags.

3. In 2014, Singapore generated 869,000,000 kilograms of plastic waste.

4. Only 80,000,000 kilograms of plastic waste was recycled, that's only 9.2%.

In 2012, Singapore Environment Council worked with the Ministry of the Environment and Water Resources to investigate how households obtain and reuse plastic bags.

Plastic Bag Usage Patterns
89.9% of respondents indicated that they would reuse plastic bags to dispose general waste. 8.5% would recycle the plastic bags. 6.3% said that they would throw the bags away without reusing them.

Reusable Bag Patterns
14.1% of respondents used reusable bags all the time, while 32% never used reusable bags for shopping. The top-most cited reason for not using reusable bags was that plastic bags were provided (39.3%).
The outreach is a successful one. Many people were interested in our posters and booth, especially the working adults and elderly. All our reusable bags were gone by the end of the day.
People are willing to use reusable bags instead of plastic bags as they understand the environmental impacts of plastic. More people are motivated to bring their own bags when they shop. Some people expressed interest in recycling their own bags.
Dr. Varathan
District Officer in India

He was really keen to know what we were presenting about. He asked for our objectives as well as the school’s approach towards recycling. In the end, he said he will try to implement the habits and practices of recycling back in his district in India.
Encouraging Community Action
Case Example 2

Mr Stephen Dexter
Principal of Stamford American International School.
After learning about our objective and aim for this outreach, he too, mentioned that his school does not have such practices and was keen to work with us to kick-start the eco-friendly movement in his school.
Statistics

• Activity Dates: 15 August (Saturday)
  14 November (Saturday)
• Duration: 10 am to 8.30pm
• Number of duty shifts: 7
• Number of students: 26
• Number of reuseable bags distributed: >300
• Number of brochures printed: 1000
An Eco-Outreach Effort of CHIJ St Nicholas Girls’ School