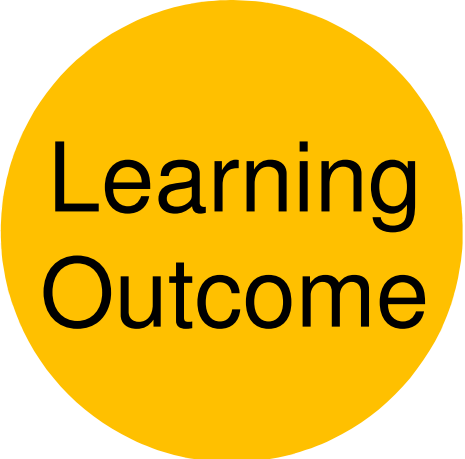





Food Waste Reduction Ambassador Training



Link to Video: <https://www.youtube.com/watch?v=7UrIHUVTv-4>



Learning Outcome

- 1 What is Food Waste?
 - 2 Understand the Food Waste Situation in Singapore
 - 3 Learn the basics - Food Waste Management
 - 4 How Can We Contribute to Reduce Food Wastage
 - 5 Be the Change, Be the Ambassador
- 



1

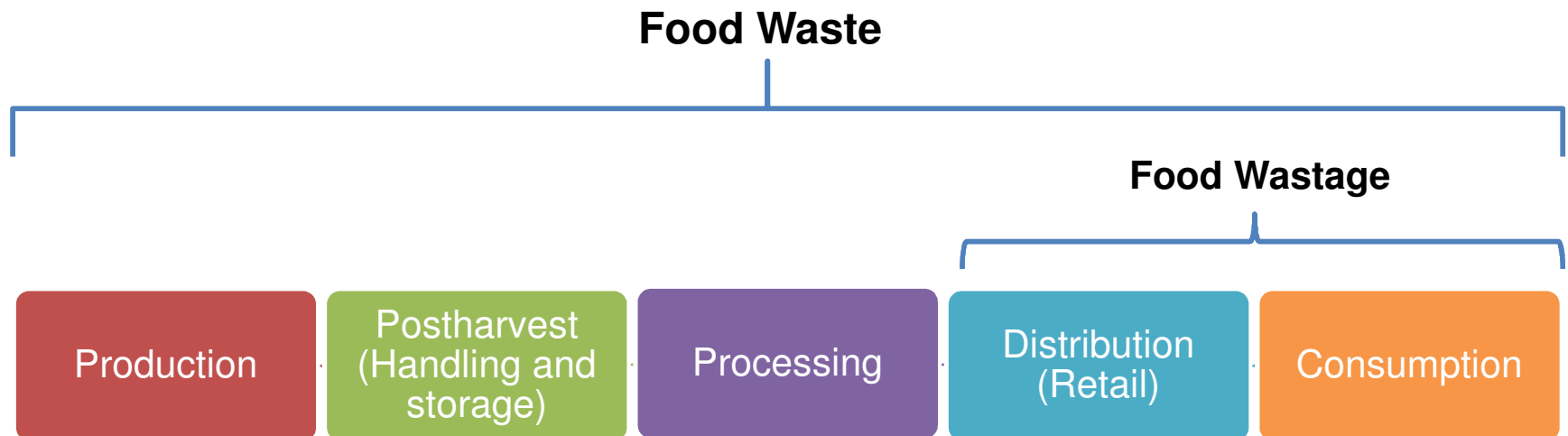
What is Food Waste?



What is Food Waste?

Food Waste : all unconsumed food substances that are disposed off or recycled.

Food Wastage: food waste occurring at the end of the food supply (that is, at the retail and final consumption stages) resulting from retailers and consumers' behavior.



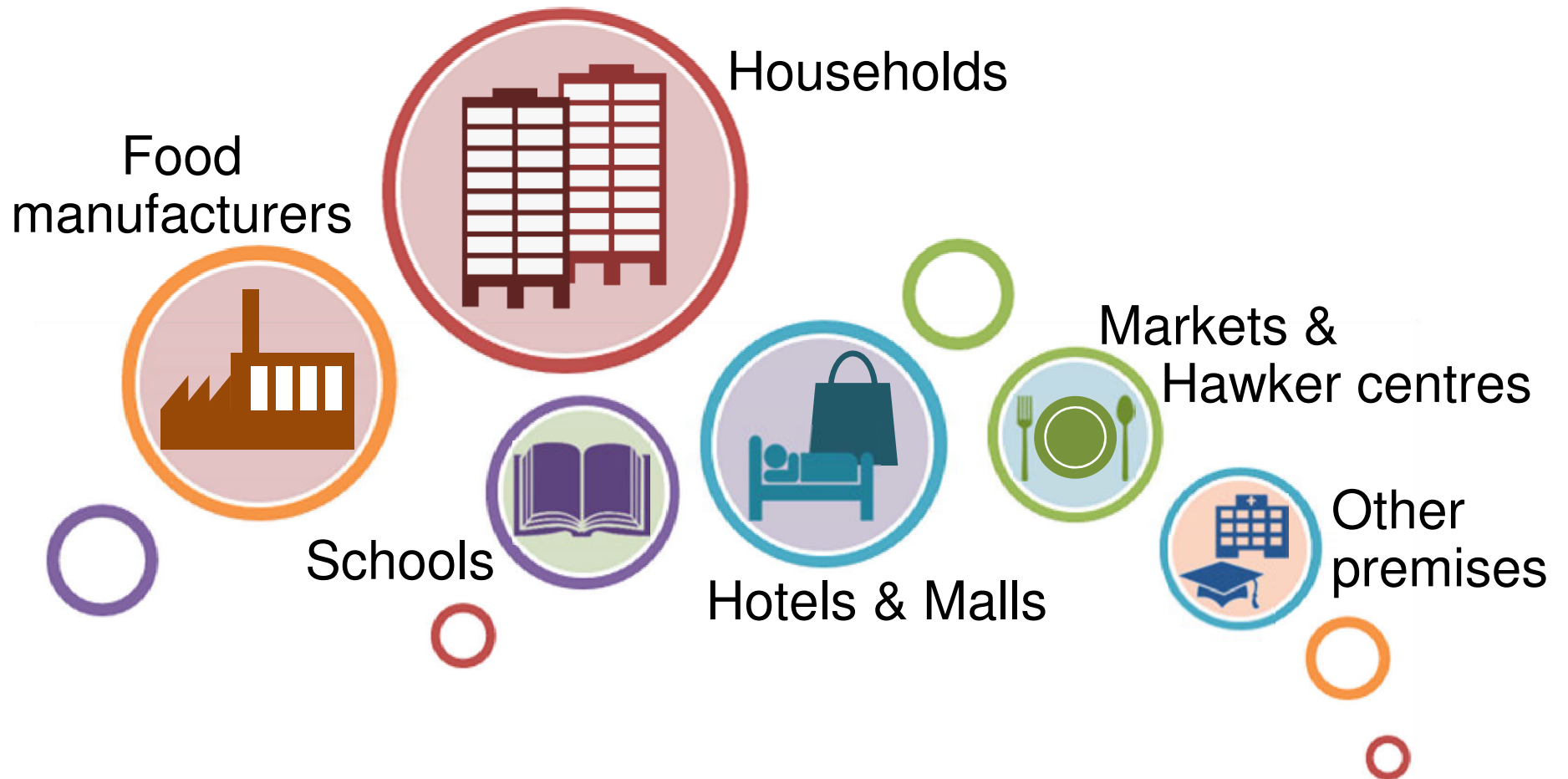


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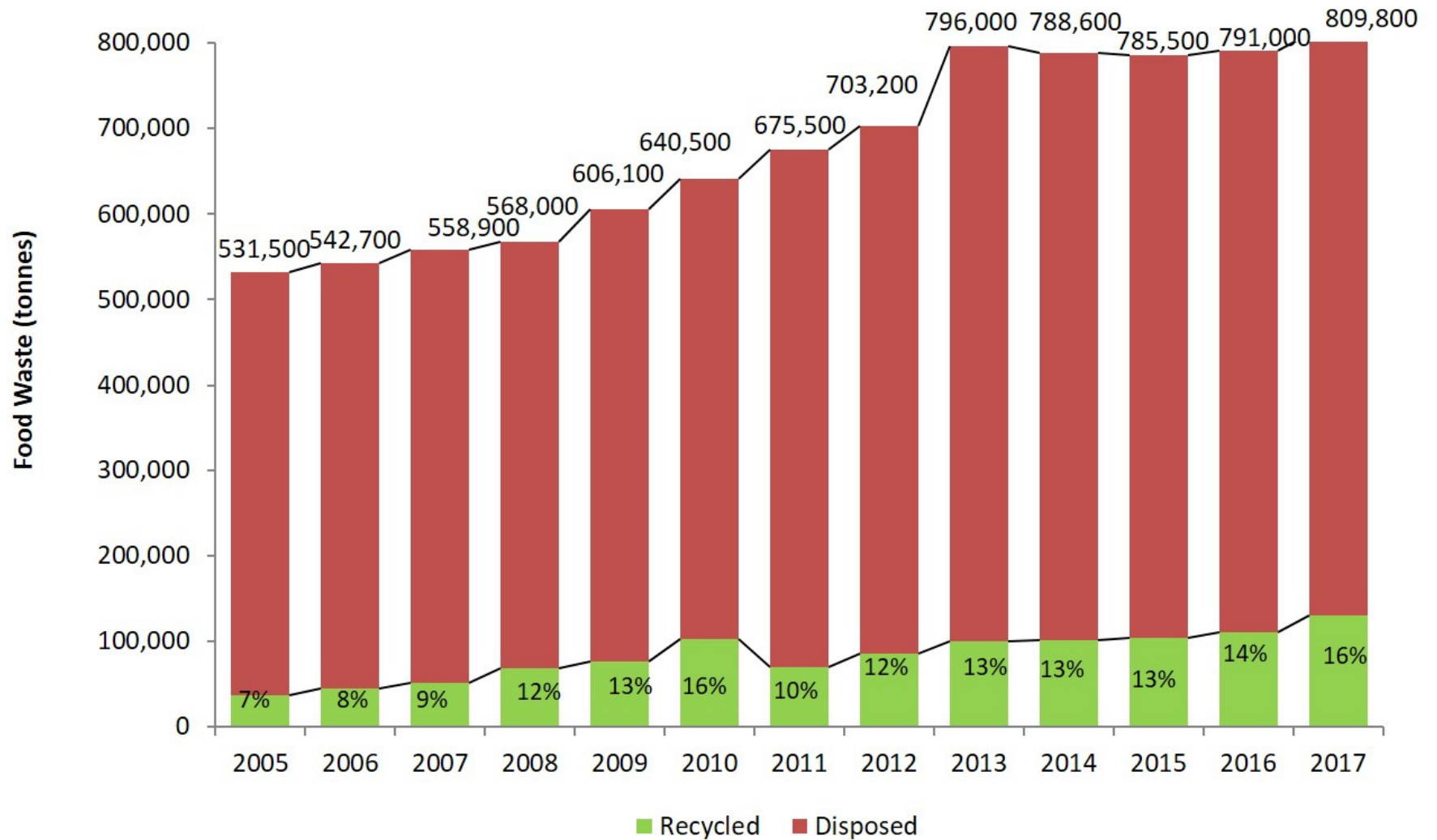
Food Waste Situation in Singapore



Sources of Food Waste



Food Waste in Singapore over the years



Food Waste Statistics in 2017

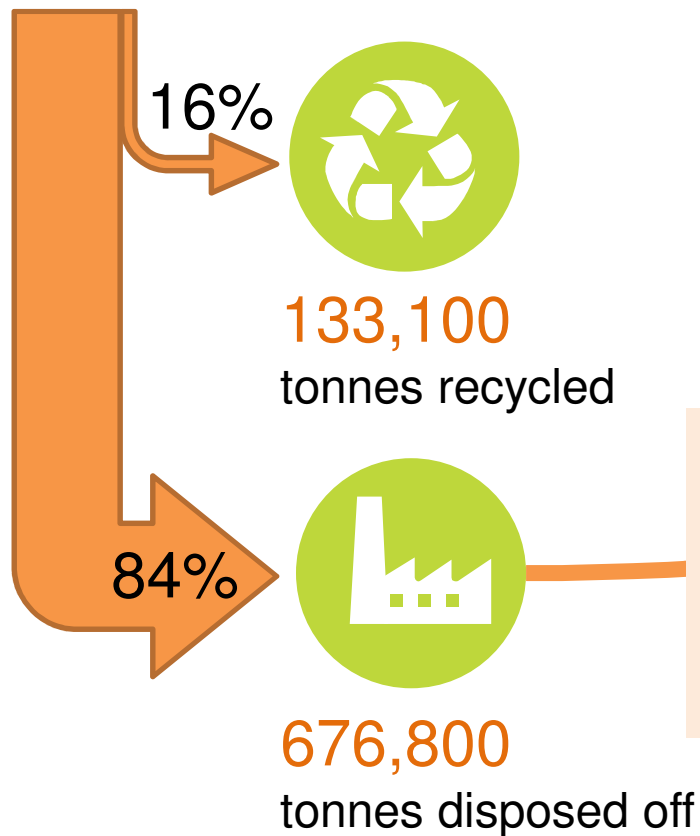
809,800 TONNES of food waste generated in 2017

≈

270

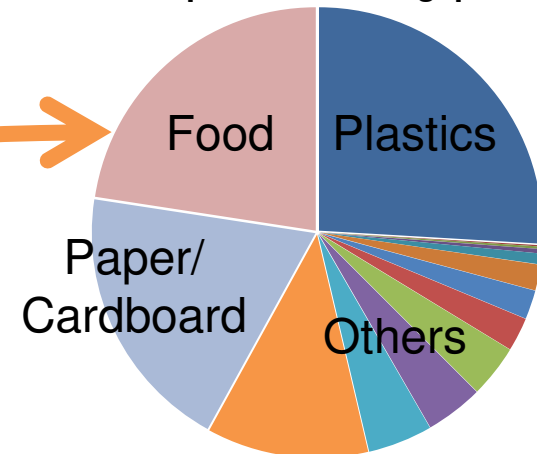


garbage trucks per day



23% of the total waste disposed of in Singapore

3 million tonnes of waste disposed of in Singapore in 2017



Solid Waste Challenge in Singapore

At the current refuse disposal rate, we would require:

1  WTE
Plant

Every **7-10** years

1  Semakau
Landfill

Every **30-35** years



Consumer Behaviour and Attitudes Towards Food Waste

Cooking and Eating Habits



26%

purchase more than enough food for consumption



70%

said the reason was to ensure household members have more than enough to eat



80%

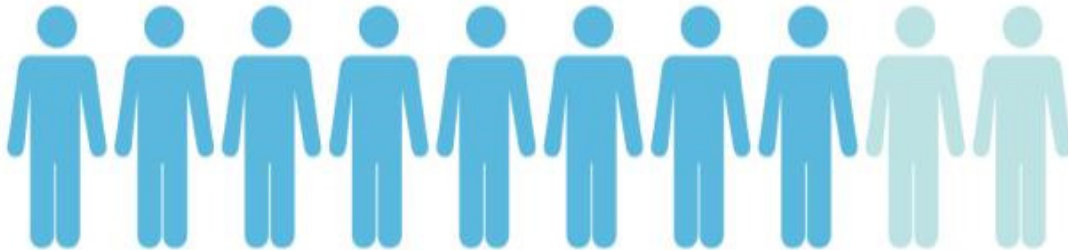
prepare food at home



39%

of those who prepare food at home have leftover food after a meal

Attitudes Towards Food Waste



8 in 10 are bothered when uneaten food is thrown away.

90% felt that it is a waste of money.

Top Reason for Food Waste in Households



BEST BEFORE
dd/mm/yyyy

Food gone out of date (63%)

Consumer Behaviour and Attitudes Towards Food Waste

Factors That Motivate Change



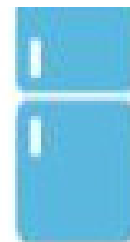
81%

think that they should reduce food wastage to save money



77%

think that they should reduce food waste because it is bad for the environment




61%

will waste less food if there is better info on how to plan and store food



3

Learn the basics: Food Waste
Management Strategies



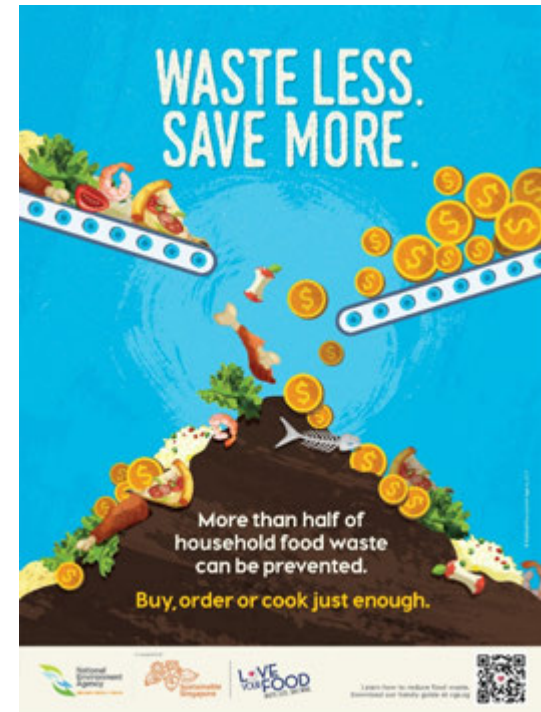
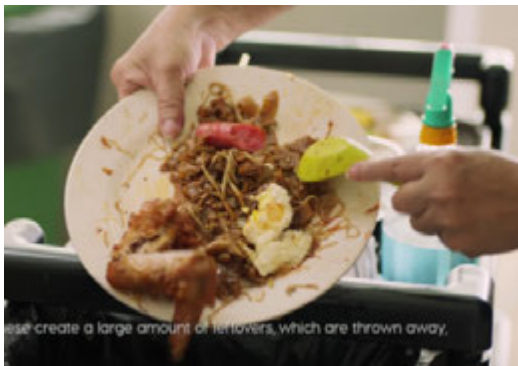
Food Waste Management Hierarchy



Strategy 1: Prevent and reduce food waste at source

Food Wastage Reduction Publicity & Outreach Programme

- Targeted at consumers to raise awareness on the food wastage problem in Singapore
- Sharing the importance of reducing food wastage and how individuals can take actions.



Link to Video: <https://www.youtube.com/watch?v=7UriHUVTv-4>

Strategy 1: Prevent and reduce food waste at source

Food Waste Reduction Good Practice Guides

- Targeted at food manufacturers, retail food establishments & supermarkets
- Guidelines to minimise food waste from their business operations (developing with inputs from stakeholders)

FOOD DISTRIBUTION ORGANISATIONS
Retail food establishments can donate excess food products (e.g. unused canned food, surplus perishables) to the needy. A list of food distribution organisations are listed below:

Figure 14: Food retailers are an important source for food banks (Image: Food Bank)

Food distribution organisations	Examples of acceptable types of food	Contact
The Food Bank Singapore Ltd	Canned food, discontinued food types, mislabelled foods	Tel: 6831 5395 Website: foodbank.sg Email: enquire@foodbank.sg
Food from the Heart	Bread, groceries	Tel: 6280 4483 Website: foodfromtheheart.org Email: info@foodfromtheheart.org
Willing Hearts	Groceries	Tel: 6476 1098 / 6476 5822 Website: www.willinghearts.org.sg Email: willingheartsingapore@gmail.com

http://www.nea.gov.sg/docs/default-source/energy-waste/food-waste-minimisation-guidebook_retail-food-establishments_241016.pdf

Strategy 1: Prevent and reduce food waste at source

Ground-up initiatives and campaigns to promote food wastage reduction



Strategy 2: Redistribute unsold/excess food

- NGOs that support Food Donation/Redistribution (e.g. Food Bank Singapore, Food from the Heart)
- Guidelines on Food Donation by NEA is incorporated into the Food Waste Reduction Good Practice Guides

Manufacturers, retailers,
members of the public with
surplus food



Credit: Food Bank



Beneficiaries
eg. charity organisations,
old folks' homes

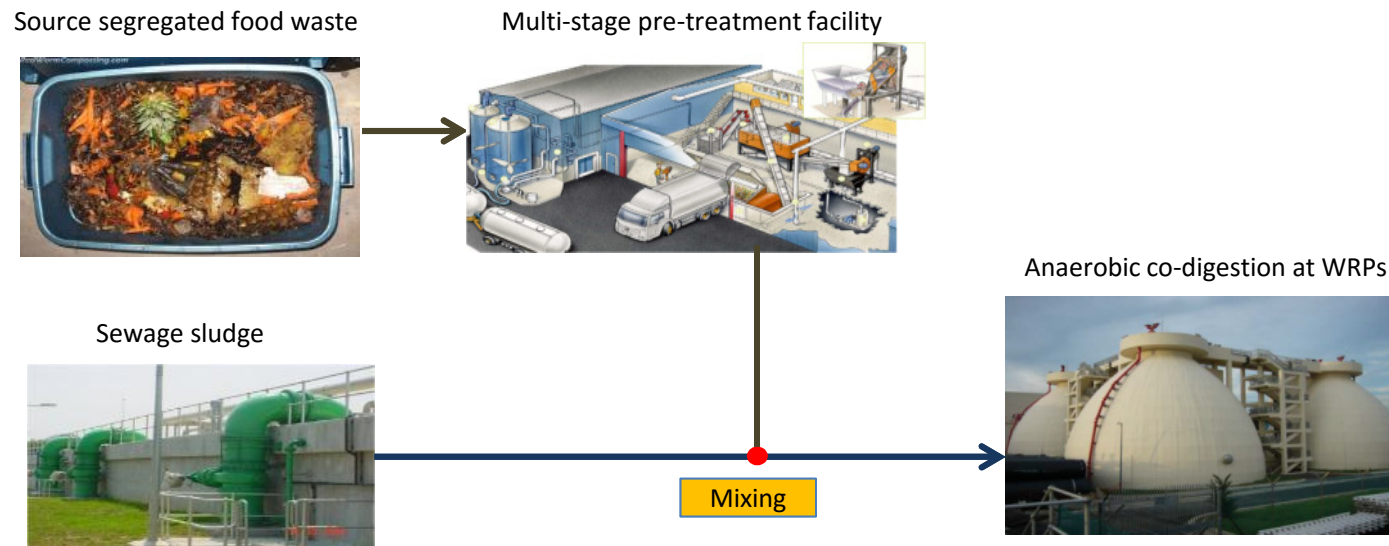


Credit: Food from the Heart

Strategy 3: Recycle food waste

Food Waste Recycling Pilot Projects

- On-site food waste recycling at 2 hawker centres
 - Tiong Bahru Market and Ang Mo Kio Block 628 Market
- Collection of food waste from schools, hospitals and army camps, etc, for co-digestion with used water sludge at Ulu Pandan Water Reclamation Plant to produce biogas



Strategy 3: Recycle Food Waste

Onsite Food Waste Recycling Machine Technologies

Compost



Non-potable water



Liquid soil enhancer



Compost & Non-potable water



Eco-Wiz Dry system
(ecoComposter)



Eco-Wiz Wet system
(ecoDigester)



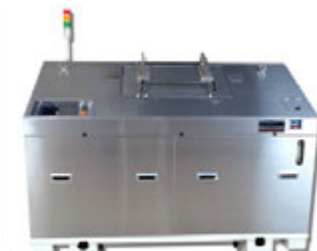
Biomax Rapid Thermophilic
Digestion system



BioHitech Eco-Safe digester



VRM Bio-Regen system



Eco-Wiz Hybrid system
(ecoDHybridDigester)
[NEW system]

Note: These are some of the food waste recycling systems in the market currently but it is not exhaustive

Food Waste Recycling Work Flow at AMK Bk 628 Market



Segregation of food waste from cooking and food preparation



Segregation of food waste at hawker centre from tray return area & table tops



Consolidated food waste at the bin centre



Food waste deposited in digester



Digester converts food waste into non-potable water in 24 h

Food Waste Recycling Work Flow at Tiong Bahru Market



Segregation of food waste from food & market slab stalls



Transportation & consolidation of food waste at the bin centre



Food waste deposited into machine for grinding



Segregation of food waste at hawker centre from tray return area



After processing liquid soil enhancer is produced after 42 days



Transferring of slurry to be transported off-site for processing



Food waste slurry stored in tanks at bin centre

Strategy 4: Recovery of Energy

- Food waste that is not recycled is disposed of at waste-to-energy incineration plants, where energy is recovered.





4

How Can We Contribute to
Reduce Food Waste?



“Love Your Food” Campaign



In Singapore, we love food. But sometimes, we order, cook or buy more than what we need. This leads to food wastage.

To cherish resources used to grow the food and money used to purchase food, we have launched “Love Your Food” campaign.

It seeks to create greater awareness and promote lifestyle changes amongst the residents.

3 Key Tips



1. Make a shopping list and keep to it



2. Cook just enough



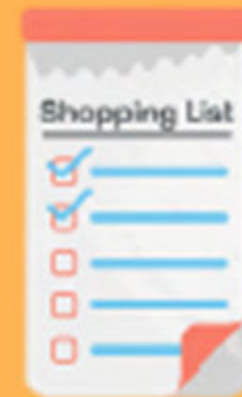
3. Order only what you can finish

LOVE YOUR GROCERIES

1. Check your kitchen before going grocery shopping



2. Plan your purchases ahead



3. Look past the imperfections

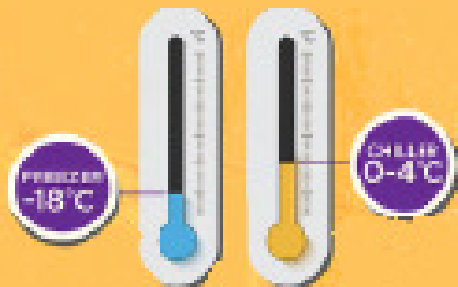


TIPS FOR STORING FOOD



1. Store it correctly

Follow storage instructions on the product's packaging



2. Check your fridge's temperature

Chiller: between 0°C and 4°C
Freezer: -18°C and below*



3. Store it better

Some products like chips are better stored in airtight containers.

* Freezer temperatures may vary according to different models or types. Check and avoid consuming food that has passed its expiry date.

TIPS FOR STORING FOOD



4. Practise 'first to expire, first out'

Place products that are nearer their expiry dates at the front of the fridge, to remind yourself to use them first.



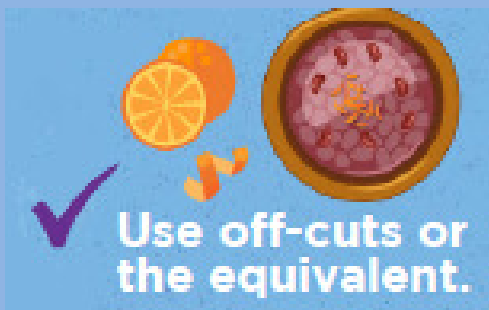
5. Use the freezer

Box up leftovers and freeze them so they can last longer and be easily reheated for the next meal.

LOVE YOUR COOKING



Plan meals according to what you have, and what's expiring soon.



Off-cuts of meat and vegetables can be used to make stocks.



Determine amount to be cooked with the diners' appetite and eating habits in mind.



Pack any excess food for your relatives, friends or neighbours.



Use only what's left in your kitchen, including leftovers.

LOVE YOUR MAKAN SESSIONS



Order only what you can eat.

Start with less food on the table and order more later, if you need to.



Ask for advice.

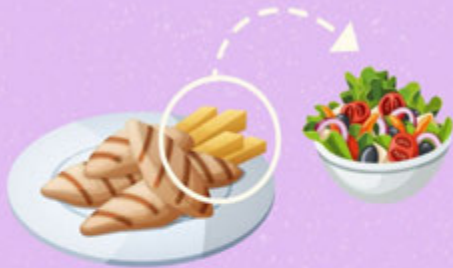
Consult the server on portion sizes to determine how much to order.



Downsize your order.

If you intend to eat less, ask for a smaller portion.

LOVE YOUR MAKAN SESSIONS



✓ Swap sides.

If a dish contains something you don't eat, request for a replacement when ordering.



✓ Share dishes.

Offer a portion to your dining partner(s) before you start eating.



✓ Don't rush to order more.

It takes 15-20 minutes after eating to start feeling full.



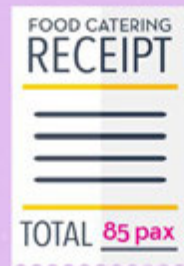
"I must ensure everyone has more than enough to eat."

If you have to provide a large amount of food, portion before serving so that leftovers are kept clean for storage.

"I don't know how to estimate how much food is needed."

Try using the free Healthy Chef app by Health Promotion Board. It helps you adjust recipes based on the number of servings required.

TIPS FOR PARTIES AND EVENTS



✓ **Cater for less than the actual number of guests.**

When catering for an event, it's usually safe to order for 10% to 15% less than the number of guests attending.



for
3 pax



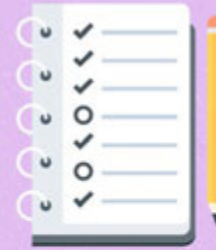
for
3 pax



for
4 pax

✓ **Provide just enough.**

Downsize the portions of each dish if you are planning to serve a variety of dishes.



✓ **Know what your guests are bringing.**

Potluck meals should be carefully planned. Ask your guests the type and quantity of food that they're bringing.



✓ **Keep it neat.**

Encourage your guests to not leave any scraps on their plates. It makes cleaning easier and minimises food wastage.



REDUCE
FOOD
WASTAGE
THIS FESTIVE
SEASON

TIPS FOR FESTIVE SEASONS



✓ Prepare just enough.⁸

- Make a shopping list and check it twice. Buy only what you need.
- Cater for 10-15% less than the number of expected guests.



✓ Give with thought.⁸

Avoid highly perishable items. Choose food gifts that you know the recipient would enjoy.



✓ Go small.⁸

Provide smaller plates for guests to encourage smaller portions, reducing the amount left on plates.



✓ Freeze your leftovers in small portions.⁹

Divide leftovers into small portions and pack them into airtight containers before freezing them.


Now let's TAKE A LOOK AT MRS LIM to see how she's playing a part in reducing food wastage IN HER EVERYDAY LIFE



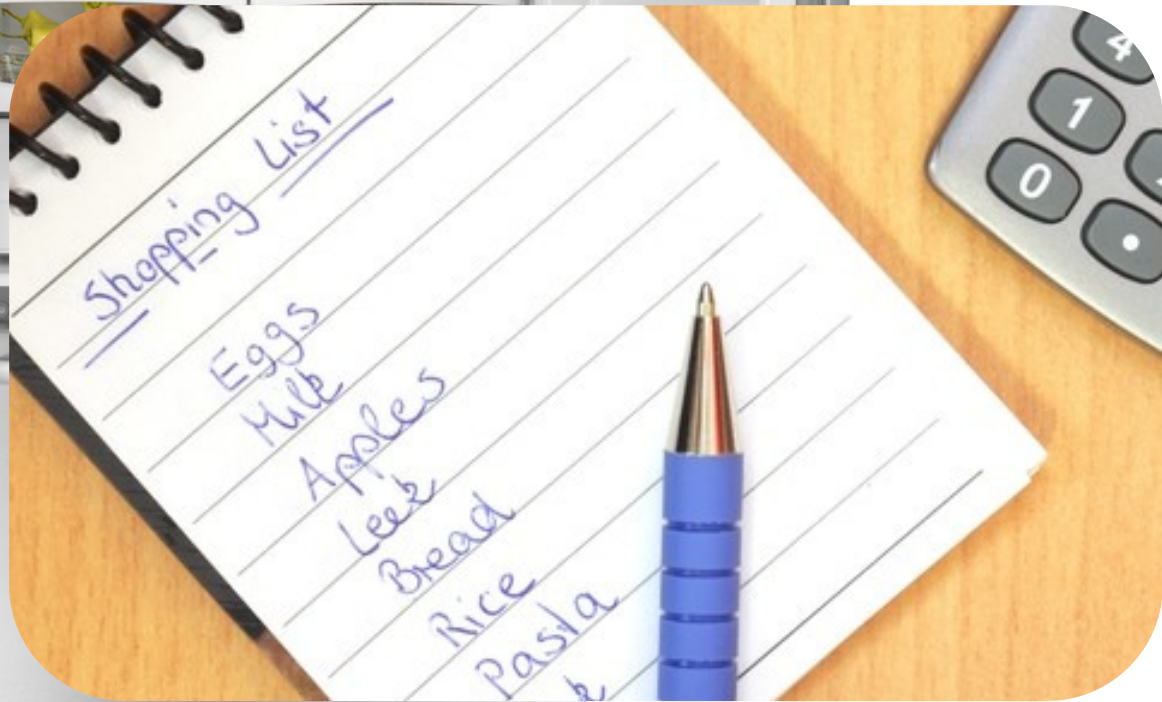
Photo credit: Thinkstock



Hmm, it's time to go for grocery shopping. I wonder what's left in the fridge?




Ok I still have some fruits and vegetables left... I should make a shopping list!



ORGANIC
PRODUCE

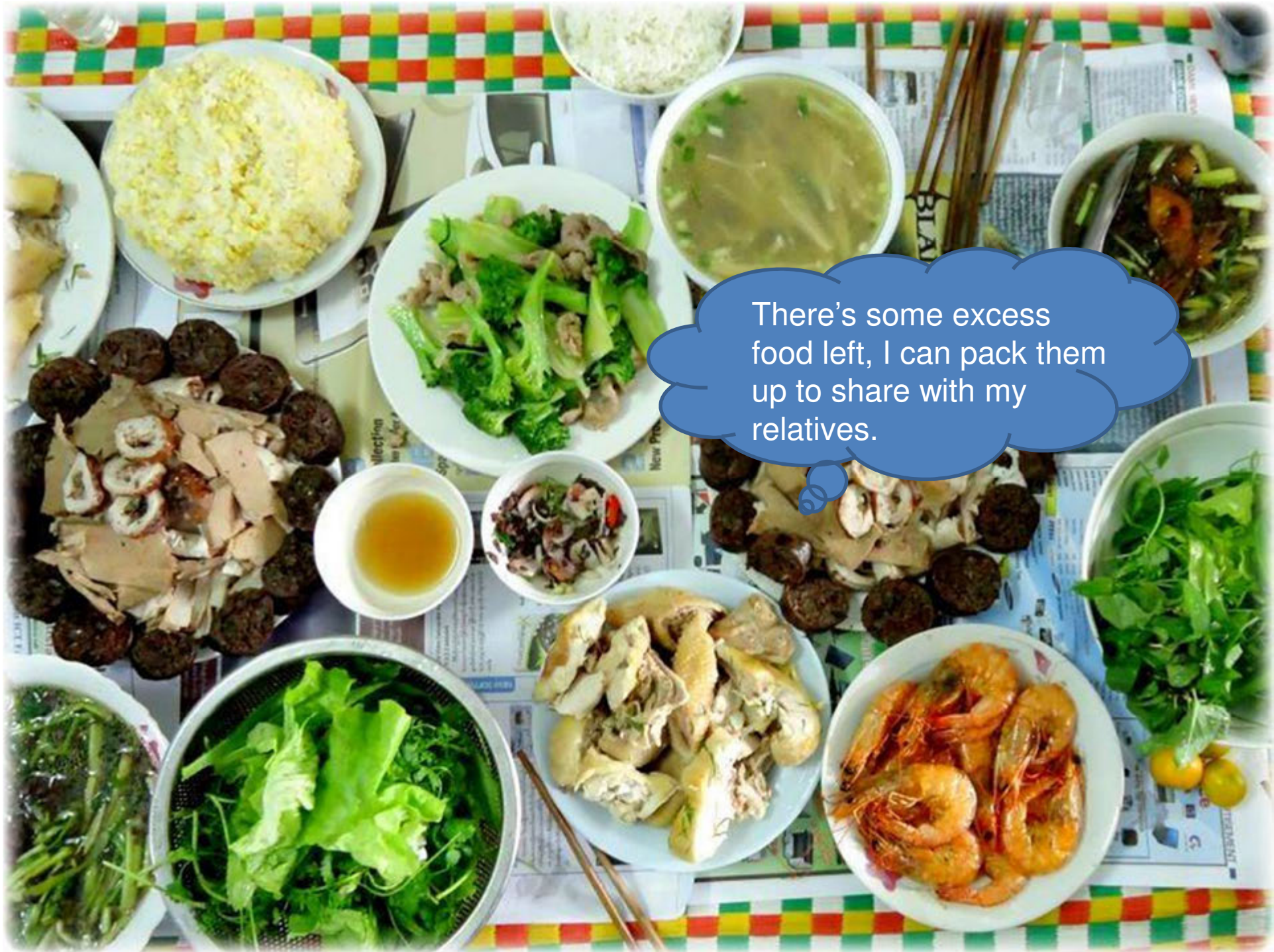
Some of them are not perfect but it's ok, I can do some trimming and still cook them.





I have to keep in mind my family members' appetite to make sure I don't over prepare.

There's some vegetable stalks left, I can use it for the soup stock later...



There's some excess food left, I can pack them up to share with my relatives.

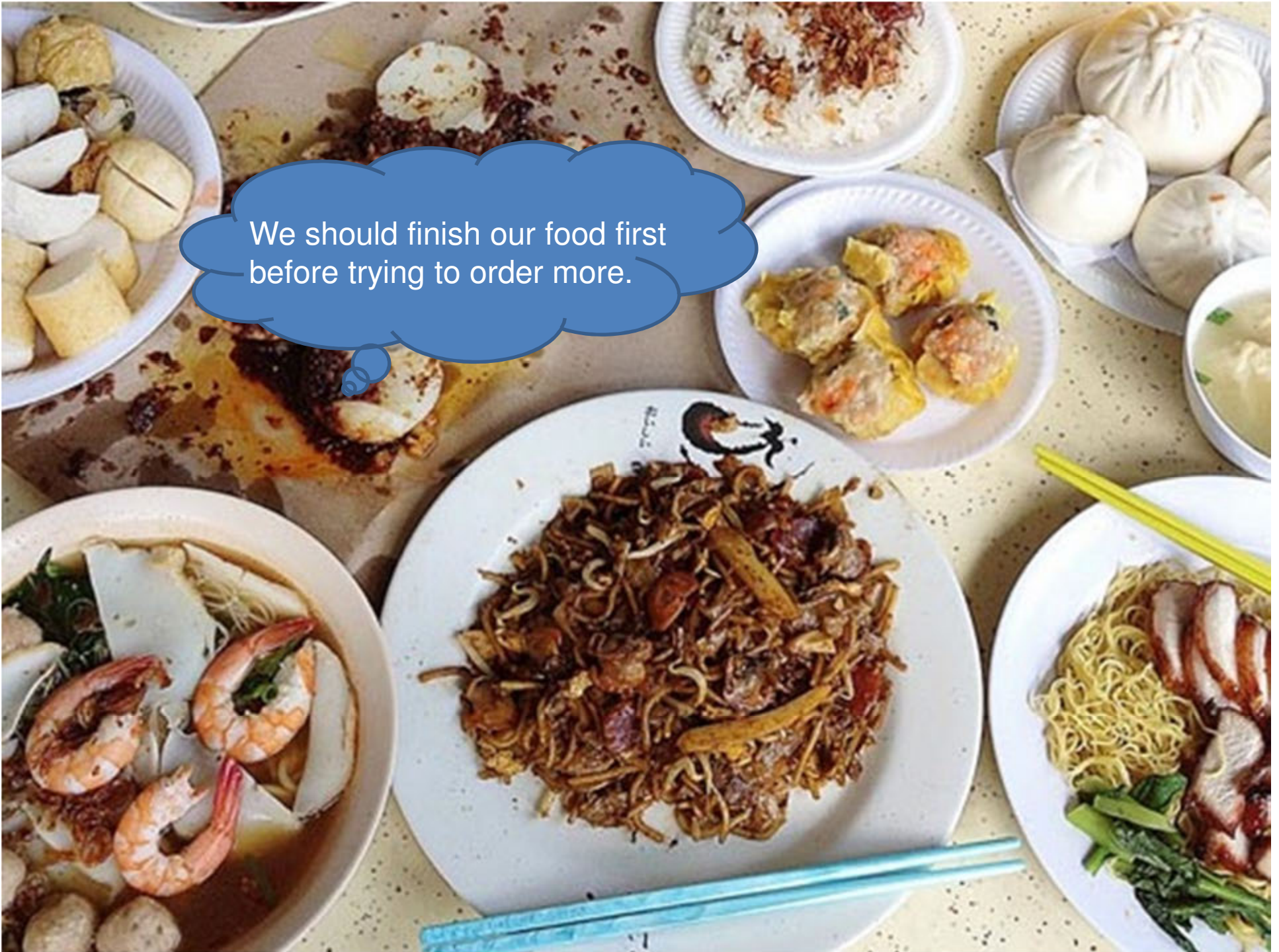


Oh there are some unopened canned food that we probably won't eat anytime soon. I should donate them



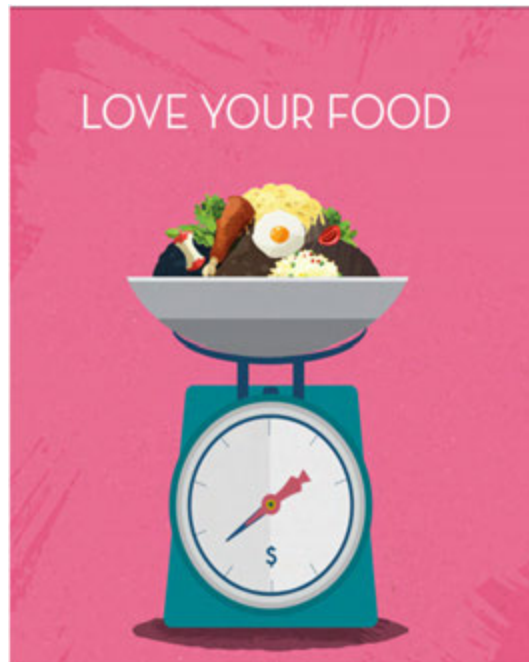


Dinner at the hawker centre the next day...



We should finish our food first before trying to order more.

Quiz Time



WHAT SHOULD YOU DO?

- A** Make a shopping list and keep to it



- B** Avoid buying odd-looking and blemished fruits and vegetables



- C** Check the kitchen before going grocery shopping to prevent duplicate purchases



WHAT SHOULD YOU DO?



A Come back another day to try other dishes

B Order additional dishes only if you are still feeling hungry after eating

C Order everything at once

WHAT SHOULD YOU DO?

- A** Order a large variety of dishes at once for sharing with everyone at the table



- B** Leave behind what you cannot finish



- C** Ask for a smaller portion



- D** Swap your side dish of rice for veggies



WHAT SHOULD YOU DO?



A Leave the French fries aside and do not eat them



B Request for a different side dish



C Give the side dish to a friend



D Request to remove side dish





5

Be the Change,

Be the Ambassadors



Role as Food Waste Reduction Ambassador (FWRA)

- Lead by example and practise the 3 key tips.
 - Make a shopping list and keep to it
 - Cook just enough
 - Order only what you can finish
- Reach out to their families, friends and neighbours to promote greater awareness on food waste and what they could do to help in the food waste situation in Singapore
- Advocate others to practise the 3 key food waste reduction tips
- Organise events and activities within your school/community to create awareness on food wastage reduction (e.g 'Love your food' meals, food drop, exhibition)
- Food Waste Reduction Ambassadors may be called upon on ad-hoc basis to assist to reach out to public through events and activities



Trainings to be FWRAs

- Mass trainings will be conducted 2 to 3 times a year
- For more details, pls refer to website cgs.sg.

Community Engagement Tools



- Posters & handy guide : <http://www.cgs.sg/FWRguide>
- Waste Less Save More video: <https://www.youtube.com/watch?v=7UrIHUVTV-4>

How to approach public...

1. Engage with eye contact and smile
2. Keep to a comfortable physical distance
3. Introduce yourself (friendly tone, clear voice, not too soft.)
4. Be sensitive (detect if the public is unfriendly for conversation)
5. Be safe (disengage if you sense any potential danger)



Image credit: <http://strangerroom.com/>

Let's role play...

Scenario 1 –

A Food Waste Reduction Ambassador (FWRA) met up with his neighbour (Auntie) at the void deck....

FWRA: Hi auntie, going NTUC?

Auntie: Ya, my son's family coming back for dinner.

FWRA: Wow, planned what to cook already?

Auntie: Ya, all their favourite dishes. Haha

FWRA: You must have checked the fridge, so you don't buy those you already have?

Auntie: Ya, checked already.

FWRA: Have a shopping list?

Auntie: Yes, and keeping to it. Didn't bring extra money. Haha

FWRA: And also not to over-cook tonight... hehe

Auntie: Or I'll pack some leftovers for them.

Let's role play...

Scenario 2 –

A Food Waste Reduction Ambassador (FWRA) doing public engagement at shopping mall....

FWRA: Good afternoon, my name is xxx, I'm a Food Waste Reduction Ambassador. Would like to share with you more about food waste.

Shopper: ... Okay....

FWRA: Did you know that in Singapore, we wasted 800 million kg of food in a year?

Shopper: Wow, so much....

FWRA: Therefore, when we go out to eat, only order what we can finish.

Shopper: Oh....

FWRA: Pack the food back if we cannot finish all.

Shopper: Then I need to bring a box along...

FWRA: This is a handy guide for you. You can read more here. Thank you for your time!

Enjoy your shopping!

Shopper: Sure, thanks!



Pledge to practise the 3 tips!



Or go to the link to pledge: <https://goo.gl/forms/jKsUMIBABWMJ2p2V2>

Our Environment

Safeguard • Nurture • Cherish

