



Pilot Programme on Provision of Small Food Waste **Composters at Schools** Talk



Content

- 1) Food waste problem in Hong Kong
- 2) Food waste problem in nearby cities
- 3) Hong Kong food waste management strategies
- 4) School Food Waste Issues





















Food Waste

refers to any waste , including

raw/cooked food, edible and inedible,

that is generated during the processes

of food production, distribution,

storage and preparation or

consumption.







Left-overs

Food that is still edible and harmless to the body, such as foods with unsatisfactory taste or



unsalable







Classification of food waste

Avoidable food	Possibly avoidable food	Unavoidable
waste	waste	food waste
Edible but disposed food	Food consumed based on preference	Inedible Food parts

















Hong Kong Food Waste Problems

The daily food waste

disposal rate is 3,353

tonnes, which accounts

for 30% of the municipal

solid waste







School Food Waste

An environmental group conducted food waste audit in

- 31 primary schools in Hong Kong from 2013 to 2016 and
- estimated that the average daily food waste generated by
- a school with around 700 students was about <u>55 kg</u>





Causes of food waste

- People's eyes are bigger than their stomach and they
 pile more food than they could eat into the shopping
 carts and onto the plates
- picky eating
- inadequate understanding of cherishing food and waste food easily





Taiwan – Taipei

- Since 2001, the Taipei City residents are required to <u>separate</u> recyclable items from the garbage including food waste
- In late-2003, Taipei started promoting the food waste recycling policy. Food waste must be subdivided into:
 1) suitable for reuse as livestock feed;
 2) compost/fertilizer convertible









South Korea –Seoul

From 2005 onwards, all food waste is recycled

Since 2013, a specific quantity-based charging scheme for food waste has been implemented throughout Seoul













Hong Kong

The Hong Kong daily domestic waste generation rate per capita is higher than the nearby Asian cities like Metro Tokyo, Seoul City and Taipei City by 20% - 40%







How does the food waste affect our environment?





Problems produced by food waste (1)

- Impacts on carbon footprint
- Emission of <u>carbon dioxide</u> during food production and transportation



• When food waste decomposed at the landfills, a large amount of <u>greenhouse gases</u> is produced



Problems produced by food waste (2)

- > Impacts on water resources
- Agriculture accounts for 70% of the world's total water usage
- It is estimated that disposing 1
 kg of beef will waste around
 15,000 L of virtual water





Problems produced by food waste (3)

Social cost effects



- Disposing large amounts of food waste will increase the pressure of landfills
- The cost of operating landfills and other waste management facilities
- Planned to implement Municipal Solid Waste Charging Scheme. Citizens will need to pay for their own waste (including food waste)





Problems produced by food waste (4)

- > Impacts on the Environment
- Generation of odour, sewage
- When food waste is disposed at the landfills, the usable organic matters will be wasted, and leachate which may impact the environment will be generated





Hong Kong food waste management

In 2014, 'Food Waste & Yard Waste Plan for Hong Kong 2014-2022' was launched

DONATE

- 1. Reduction at source
- 2. Food donation
- 3. Food waste collection
- 4. Turning food waste into Energy



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Prever	nt and reduce food waste at source	- ? I
	Donate surplus food for human consumption	DONATION
	Recycle to recover energy and nutrients	PMTPITT
	Waste-to-energy treatment of MSW	⊌
	Clean Landfill- ing	



Reduction at source

- 'Food Wise Hong Kong Campaign' was launched in 2013
- As of December 2019, over 860 local institutions and companies signed the 'Food Wise Charter' and committed to reduce food waste
- Around 860 eateries participated in the Food Wise Eateries Scheme
- Established 'Food Waste Reduction Good Practice Guides'







Food donation

- The Environment and Conservation Fund supports non-profit organisations to collect surplus food and distribute them in the community
- As of December 2019, <u>55 food recovery programs</u> have been approved for funding.
- 6,900 tonnes of food was recovered and more than 8.9 million headcounts were benefitted
- In 2013, Centre for Food Safety issued a set of food safety guidelines for food recovery





Food Waste Collection

The Government has launched a <u>Pilot scheme for free food waste</u> <u>collection service</u>, which primarily collects the food waste generated from the markets, cooked food centres, shopping centres, primary and secondary schools, and tertiary institutions







Waste to Energy (1)

Network of Organic Resources Recovery Centre

Adopt <u>anaerobic digestion</u> process to convert food waste into biogas as renewable energy to <u>generate heat and electricity</u>. The residue produced during conversion process can be used as <u>compost</u> for landscaping after processing







Waste to Energy (2)

Food Waste/ Sewage Sludge Anaerobic Co-digestion Trial Scheme

- Study the flexible use of the existing and planned sewage treatment works for co-digestion
- Tai Po Sewage Treatment Works has commissioned in May 2019 to treat up to <u>50 tonnes of food waste</u> per day.







How can we reduce our food waste in daily life?





Food Wise Tips

Adopting on-site meal portioning arrangement

- Cut down on snacks before meals or during recess
- Recognize one's consumption amount, "take and buy only what you can eat"
- Participate in seminars and workshops to know more about the food wise culture
- Participate in food waste recycling related activities in schools



Parents can prepare lunches for students



Students take part in supporting food wise



Composters



















Vegetables : leaves, roots, seeds, skins Plastic products: plastic bags, plastic table cloths and nylon ropes Residues: Tea leaves, Chinese medicine and coffee residues Liquids: Soup, sauce and juice











Soft shell (in small amount): Shrimp shells, egg shells

Rice : Rice and other grain products

Metal Products

Cutlery: chopsticks, toothpicks, fork and spoon











Cardboards: Packaging box

Beans: All bean products, such as tofu Household chemicals: Detergents, insecticides

Meats: Raw or cooked chicken, duck, fish, meat







Glass products

Large bones: bones of pig, cow, chicken and duck

Fruits: fruit core, fruit peel Wheat: Noodles, bread and other wheat products



Thank you !



