

Guideline on How to Promote Green Lunch in Schools

1. Target Users

- 1.1 For School Management, please read the following sections: The Problem, Analysis of Meal Arrangements in Schools, Recommendations for School Management and Relevant Information.
- 1.2 For School Lunch Suppliers, please read the following sections: The Problem, Analysis of Meal Arrangements in Schools, Recommendations for School Lunch Suppliers and Relevant Information.
- 1.3 For Disposable Lunch Box Recyclers, please read the following sections: The Problem, Analysis of Meal Arrangements in Schools, Reminders for Disposable Lunch Box Recyclers and Relevant Information.
- 1.4 We hope that other Organizations who have to arrange for or procure group meals on a regular basis may also find this Guideline useful.

2. The Problem

- 2.1 The Environmental Protection Department (EPD) conducts on-site landfill survey once a year to monitor the local solid waste composition and publishes its findings in an annual report entitled “Monitoring of Solid Waste in Hong Kong”. At present, solid waste is divided into some 60 categories, of which the “dining wares made of plastic/poly-foam” covers basically all types of disposable food and drink containers and cutlery. In 2008, the volume of such waste we disposed of amounted to about 175 tonnes per day.
- 2.2 Disposable food containers are usually made of non-degradable materials that will stay in earth forever and pollute the environment. To protect our environment, schools can help by drawing up and adopting a suitable green lunch policy based on the principle of “Reducing Pollution and Minimizing Wastage”. This will also provide a good educational opportunity for students to learn first hand about how to protect the environment.
- 2.3 In this Guideline, we will analyze the meal arrangements commonly used in schools and compare their pros and cons from the environmental protection perspective. We will also recommend effective ways to reduce disposable food containers and their associated waste and provide useful information for schools on how to implement such recommendations.

3. Analysis of Meal Arrangements in Schools

3.1 Meal arrangements in schools can be mainly divided into two types by the containers they used: reusable or disposable containers. Reusable containers mean those are robust and durable enough for repeated washing and reuse.

3.2 Meals served in reusable containers may be portioned either on-site or off-site, namely, Central/On-Site Portioning and Off-site Portioning.

3.2.1 Central/On-Site Portioning

Cooked food is delivered by lunch suppliers to schools in bulk, and then re-heated and portioned in-situ for distribution to students.

Benefits

- All dining wares used including trays, dishes, bowls, chopsticks, knives and forks, etc. are washable and reusable. Basically, no disposable containers and cutlery are used.
- The amount of food portioned can be flexibly adjusted on request. Food waste and wastage can be considerably reduced.
- According to teachers and students, eating at canteens is much more joyful and exciting than in classrooms, providing a unique social activity for students.



Points to Consider

- Schools must be spacious enough to accommodate a canteen and the facilities needed for reheating food and washing dishes etc.
- Since lunch suppliers will need to invest on such facilities, the lunch price may be higher.
- Schools need to work on the details, e.g. controlling student flow, recruiting extra volunteer parents, etc.



3.2.2 Off-Site Portioning

Cooked food is prepared and portioned at the kitchens of lunch suppliers and delivered to schools in lunch boxes according to the amount ordered.

Benefits

- Lunch boxes made of plastic or metal are generally more robust and durable than those for domestic use, and are suitable for repeated washing and reuse. As such materials have a higher recyclable value, they will be recovered for recycling end-of-life instead of dumping at landfills.
- As lunch boxes are prepared at suppliers' places and collected after use, schools do not need to provide space and manpower for it.
- Lunch suppliers usually provide cutlery made of metal or other durable materials. This can help to reduce the use of disposable cutlery.



Points to Consider

- Lunch suppliers may set a higher price for the lunch with the increase of cost.
- Although the amount of food portioned can be adjusted according to students' age, it is not as flexible as Central/On-Site Portioning. This option has little effect on reducing food waste and wastage.
- Students will miss the unique social life offered by eating at school canteens.



3.3 Students Bring their Own Lunches

Lunches are prepared by parents and brought to schools by either students or parents. While some parents may on occasions provide their children with takeaway food contained in disposable boxes, it is apparently not the norm. So it can be assumed that reusable containers are used in most cases.



Benefits

- Food containers are washable and reusable.
- Parents are in the best position to prepare the right amount of food for their children. Food wastage can be reduced and freshness of food can be guaranteed too.
- This is likely the most economical and most value-for-money option.

3.4 Any other options that are not covered in paragraphs 3.2 and 3.3 above will be regarded as using disposable food containers. Disposable food containers are commonly made of (i) polyfoam/expanded polystyrene (EPS), (ii) polypropylene (PP) or (iii) biodegradable materials. Their respective environmental impacts are discussed below.

3.4.1 EPS lunch boxes are non-biodegradable, and difficult, if not impossible, to recycle. As their adverse impacts on the environment are widely known, school lunch suppliers no longer use them for providing meals in schools.

3.4.2 PP lunch boxes are widely used as a replacement and are commonly publicized by the trade as “Environmental Friendly” lunch boxes. To determine whether it is really more environmental friendly, we need to understand the characteristics of PP lunch boxes:



➤ Reuse Potential - PP lunch boxes, when in small quantity like takeaway boxes obtained from restaurants or fast food shops, may be reused for probably a couple of times. However, when recovered in a large quantity like in the case of school lunches, mostly likely they would be dumped as refuse rather than cleaned up for reuse.

➤ Recycling Potential – A PP lunch box usually weighs about 30g with 100% plastic content. An EPS lunch box, on the other hand, weighs less than 10g, and is largely composed of air. PP lunch boxes are no doubt of higher recyclable value. At present, there are several recyclers in Hong Kong who provide services of collecting, washing and baling of used PP lunch boxes. If cleaned properly, used PP lunch boxes are no different from other plastic waste and more recyclers would be interested to recover them. Nevertheless, concrete arrangement has to make between schools and lunch suppliers on their recovery, or such lunch boxes will still be disposed of at landfills.

3.4.3 Biodegradable boxes are less commonly used by school lunch suppliers. They are usually made of plant fibres or paper. Boxes made of plant fibres are similar to EPS boxes in outlook and performance, but they are biodegradable and are regarded as an environmental friendly alternative for EPS Boxes. However, the disadvantage of such boxes is that their usage is limited. As both types of boxes lack recyclable and reusable value, in term of burden to landfills, they are very much the same.



- 3.5 From waste reduction perspective, Central/On-Site Portioning is the most desirable option. However, this option requires a lot of space and resources, and may not be suitable for all schools. On the other hand, Off-Site Portioning using reusable containers is much easier to implement. Whichever the options, schools should be mindful of the principle of “Reducing Pollution and Minimizing Wastage” when drawing up a proper environmental policy and a pragmatic implementation plan for meal arrangement. We firmly believe that if schools as the consumers insist on better services in not just quality but also in environmental aspects, lunch suppliers would make an effort to meet both ends.
- 3.6 Last but not the least, if school lunches are supplied in disposable boxes, and particularly if the so-called “Environmentally Friendly” boxes (i.e. PP boxes) are used, schools should be fully alert on whether the used boxes are really recovered for recycling. It would be even better if food waste could be collected for recycling too.

4. Recommendations for School Management

4.1 Do not Use Disposable Lunch Boxes

- If school environment is suitable, please consider the Central/On-site Portioning option.
- If not, please consider using Reusable Lunch Boxes and select lunch suppliers offering the related services.
- Encourage and help students to bring their own lunches.
- Please consider a combination of the above three options to suit the actual circumstances of your schools.

4.2 Handle PP Lunch Boxes Properly

- If a different mode other than the above three options is adopted, then you need to make arrangement for handling the used lunch boxes properly. Since PP lunch boxes are among the most commonly used disposable lunch boxes and have good recyclable value, you should work out a proper arrangement with your lunch suppliers.

4.3 Portion Food in a Flexible Manner

- If Central/On-Site Portioning is adopted, please avoid portioning excessive food to students and should only give additional portion on request.
- If food is portioned off-site and provided in separate boxes, please order food/boxes in different sizes to provide students with a choice.

4.4 Do not Use Disposable Cutlery

- Whichever the meal arrangements, please arrange for lunch suppliers to provide reusable cutlery that is washable and durable or encourage students to bring their own sets.

4.5 Install Necessary Facilities

- If Central/On-Site Portioning is adopted, please provide the necessary space for a canteen and install the necessary facilities (e.g. re-heating and washing facilities).
- Please provide washing bays for students to clean lunch boxes and/or cutlery.

4.6 Provide Correct and Relevant Information to Students

- Discuss with parents and students about the environmental policy on meal arrangement drawn up and adopted by your schools; explain the pros and cons of different options and your final decision.
- Encourage students to avoid wastage of food.
- Encourage students to pay more attention to the environment in daily life, e.g. checking if the restaurants they patronize use reusable meal boxes and dining wares, finding out if the takeaway boxes are made of PP, or making PP boxes reusable and recyclable by cleaning them properly.

5. Recommendations for School Lunch Suppliers

5.1 Provide More Choices to Schools

- If you use disposable meal boxes mainly, please consider providing or expanding your services with reusable lunch boxes to meet the surging demand of schools for more environmentally friendly lunch options.

5.2 Handle PP Lunch Boxes Properly

- Please arrange to recycle the used PP lunch boxes properly, and provide relevant and accurate information to schools.

5.3 Portion Food in a Flexible Manner

- If Central/On-Site Portioning is adopted, please avoid portioning of excessive food to students and should only give additional portion on request.
- If food is portioned off-site and provided in separate boxes, please provide food/boxes in different sizes to provide students with a choice

5.4 Provide Reusable Cutlery

- Please stop using disposable cutlery. You may provide students with washable and reusable cutlery instead.

6. Reminders for Disposable Lunch Box Recyclers

6.1 Handle Disposable Lunch Boxes and Food Waste Properly

- When handling used lunch boxes, you are required to observe all relevant legislation in Hong Kong, including those on pollution control. Details of the Water Pollution Control Ordinance and the Air Pollution Control Ordinance can be found in the following website: http://www.epd.gov.hk/epd/english/laws_regulations/comp_guides/laws_maincontent_cg.html.
- You should observe all relevant legislation in the Mainland on the import and export of waste. Enquires on such matters may be made to the State Environmental Protection Administration, Customs General Administration, State General Administration of the People's Republic of China for Quality Supervision and Inspection and Quarantine and the Ministry of Commerce as appropriate. The respective websites of these Mainland authorities are as follows: www.zhb.gov.cn, www.customs.gov.cn, www.aqsiq.gov.cn and www.mofcom.gov.cn

7. Relevant Information – Lists of School Lunch Suppliers and Disposable Lunch Box Recyclers

7.1 List of School Lunch Suppliers

7.1.1 In mid-2007, we conducted a questionnaire survey on all licensed school lunch suppliers in Hong Kong. Based on the returns received, we have compiled a list of suppliers providing the services of Central/On-Site Portioning, Off-Site Portioning with Reusable Lunch Boxes, and/or recycling used PP lunch boxes. The list is at Appendix A.

7.1.2 Schools should note that lunch suppliers on the list may provide more than one service, and should be careful when making their choice.

7.1.3 There may be other lunch suppliers in the market providing similar services. Schools are encouraged to source beyond the list by using the recommendations in this Guideline for reference.

7.2 List of Disposable Lunch Box Recyclers

7.2.1 Based on the returns received from the same survey, we have also compiled a list of disposable lunch box recyclers. The list is at Appendix B.

7.2.2 There may be other recyclers in the market who recover disposable lunch boxes for recycling. Lunch suppliers are encouraged to source beyond the list by using the recommendations in this Guideline for reference.

7.3 Updating of the Lists

7.3.1 School lunch suppliers or disposable lunch box recyclers who wish to be included in the respective lists may provide relevant information to us for verification.

7.3.2 If schools find any information on the lists factually incorrect (e.g. suppliers fail to provide the services as claimed), please contact us so that we can follow up the matters.

7.3.3 The lists will be updated from time to time as and when necessary to provide schools with the latest information.

8. Relevant Information – Other Reference Materials and Technical Support

8.1 The Education Bureau has issued the “Guidelines on Meal Arrangements in Schools” providing a comprehensive guide on how meal should be arranged in schools. The guidelines can be accessed through:

http://www.edb.gov.hk/attachment/en/sch-admin/admin/about-sch/meal%20arrangement%20guidelines_Eng_2015.pdf.

8.2 Food and Environmental Hygiene Department (FEHD) has also issued a leaflet entitled "Guidelines on How to Ensure School Lunch Ordered are Safe", which provides, inter alia, professional advice on how Central/On-Site Portioning and Off-Site Portioning should be implemented. The leaflet is available in FEHD's following website:

http://www.cfs.gov.hk/english/multimedia/multimedia_pub/files/school_lunches_ordered_are_safe.pdf.

8.3 To help schools distinguish food containers commonly found in the market, examples with photos are shown below for reference:

Reusable Food Container



Disposable Food Container (PP)



Disposable Food Container (Plant fibre).



Disposable Food Container (Styrofoam)



8.4 Biodegradable food containers made of plant fibres are similar to EPS food containers in use. Schools should ask for documentary proof if lunch suppliers propose to use such containers. For more details, please refer to the Testing Guideline on the Degradability and Food Safety of Containers and Bags and the registration list maintained by us. The Guideline and registration list can be accessed through:

https://www.wastereduction.gov.hk/en/assistancewizard/guide_food_cont.htm.

8.5 Should there be any enquiries or follow up on this Guideline, please call Environmental Protection Department's Customer Service Centre at 2838 3111 or email to: enquiry@epd.gov.hk.

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Waste Reduction and Recycling Group

Environmental Protection Department

First Edition: October 2007 (The Guideline on the Reduction of Plastic Foam

Food/ Drink Containers is hereby replaced)