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Survey on surplus food handling and donation at food companies Executive summary and policy recommendations

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1. Foreword

According to the Food and Agriculture Organization's latest figures, 840 million people go hungry every day.¹ Globally, we produce 6 billion tonnes of agricultural products – of which 1.3 billion tonnes is edible.² Rich countries waste more than 200 million tonnes of food per year, equivalent to the amount produced in the whole of sub-Saharan Africa. The truth is, one-third of the food produced is lost on its way from farm to table. Food waste generates greenhouse gases while it is being transported to landfills and when it decomposes there. These emissions contribute to climate change and extreme weather events, which endanger the livelihoods of small-scale food producers in developing countries. Wasting food means wasting land, water, fertilisers, and the human resources that go into agriculture. Because of this, at the end of 2011, Oxfam launched the GROW campaign and five principles regarding food consumption that encourage people to live more sustainably.³ The goal of this campaign is to create a future where everyone always has enough to eat. One of the GROW Methods is saving food. Under it, people are encouraged to make good use of their leftovers and cut back on food waste. In doing so, landfills will produce less greenhouse gases, and we can all live more sustainably.

In Hong Kong, many poor families cannot feed themselves adequately because of financial problems. At the same time, according to "Monitoring of solid waste in Hong Kong: Waste statistics for 2011", a report published by the Environmental Protection Department, the city sends up to 3,584 tonnes of food waste to landfills every day, roughly equivalent to 300 double-decker buses in weight. That accounts for 40 per cent of municipal solid waste. The food waste generated by the food and beverage industry – including restaurants, hotels, wet markets, and food manufacturers and processors – more than doubled from 400 tonnes per day in 2002 to 1,056 tonnes per day in 2011, which represents about 30 per cent of the city's overall food waste. If this surplus food can be rescued, salvaged and donated to poor families on time, it could be a win-win situation, with a reduction in food waste and benefits to those in need. Because of this, we carried out a survey on the Hong Kong food industry. With it, we

¹ The State of Food Insecurity in the World 2013, FAO

² Food wastage footprint: Impacts on natural resources, Food and Agriculture Organization, 2013

³ The five GROW Methods include: saving food, eating seasonally, consuming less meat, supporting small-scale food producers, and cooking smart.

aim to examine the industry's current practices regarding surplus products and food donations so that we can make policy recommendations to the government and the industry.

2. Methodology

In order to understand the food companies' attitudes towards donating food, especially surplus food – products which have lost their commercial value but remain edible – Oxfam conducted this survey from 9 September to 11 October 2013. The survey used disproportionate stratified sampling, a method in which the size of the sample from each group is not proportional to its relative size. Researchers successfully interviewed 353 respondents, including 225 branches of convenience and prepackaged food stores (“the chain retailers”) and 128 businesses that manufacture or distribute food, or both (“the food companies”), representing a response rate of 50 and 51 per cent, respectively.⁴ The respondents to this survey are representative of the 1,532 chain retailers and 858 food companies dealing in rice, noodles, cooking oil, canned food, frozen meat, vegetables and fruit in Hong Kong.

⁴⁴ The 225 convenience and prepackaged food stores surveyed included VanGO, Circle K, 7-Eleven, Hung Fook Tong, eat-east and Healthworks. The food manufacturers and distributors interviewed are from listings at the Hong Kong Trade Development Council and the Yellow Pages.

3. Key findings

3.1 Most of the companies claim they have food waste reduction policies, but 70 per cent of them still discard their surplus products.

In total, 84.6 per cent of the food companies surveyed had measures in place to use their surplus food or reduce its volume (see Annex Chart 1 or section 5.3.2 in the report), but 66.3 per cent of them (see Annex Chart 2 or section 5.3.2) still discarded their excess products as a standard practice. This shows that the companies have not successfully implemented their policies to reduce food waste.

3.2 Wasting food is a serious problem at chain retailers, with 90 per cent discarding bread, cakes and microwave food.

The three categories of surplus food that the most chain retailers reported having were bread (84.9%), cake (80.9%) and microwave food (60.4%).⁵ About 90 per cent of the companies reporting surpluses in these categories discarded them as a way of dealing with them (see Annex Table 1 or sections 4.4.2 to 4.4.5 in the report).

The three categories that the most food manufacturers and distributors reported having were grain products (61.6%), frozen meat (20.9%) and vegetables (12.6%) (see Annex Table 2 or sections 3.4.2 to 3.4.5). For the wholesalers, the categories were fruit (27.2%), vegetables (24.5%) and frozen meat (20.1%) (see Annex Table 3 or sections 3.4.7 to 3.4.10). Close to half of those reporting surpluses in these categories discarded them as a way of dealing with them (see Annex Table 2 and 3 or sections 3.4.2 to 3.4.5 and 3.4.7 to 3.4.10).

3.3 An “unattractive” appearance is the reason most often cited for categorising food as surplus products.

Our research found that most of the food manufacturers and wholesalers defined surplus food as items that looked “unattractive”. In particular, 60 per cent of the manufacturers regarded frozen meat as surplus products when they looked unattractive. For vegetables, that figure was 66.9 per cent. In the end, most of these items were discarded (see Annex Table 2 and Table 3).

3.4 Surplus food creates about \$60 million in losses annually.

On average, the food manufacturers and wholesalers reported the value of their surplus food at \$26,767 per year (see Annex Table 4 or section 3.4.15).

Chain retailers reported the value of their surplus products at \$482 per week on average, which equates to \$25,064 per year (see Annex Table 5 or section 4.4.9).

There are 858 food manufacturers and distributors registered with the Hong Kong Trade Development Council and listed in the Yellow Pages. There are 1,532 chain convenient stores in Hong Kong. Projecting the values above, the total economic loss from surplus food in Hong

⁵ For example, companies trading in frozen fish may mandate that fish pieces that are broken up must be discarded.

Kong could be as high as \$61,364,134 per year.⁶ This would be enough for 3,068,206 food bank meals at \$20 each.

3.5 Ninety per cent of the food companies do not donate food because of worries about product liability.

Of the food companies interviewed, 90.4 per cent did not donate their surplus products to non-profit or social service organisations (see Annex Chart 3 or section 5.3.5). Of these companies, 67 per cent said they were worried about product liability (see Annex Table 6 or section 5.3.6).

⁶ Economic loss attributable to surplus food: $\$26,767 \times 858 \text{ companies} + \$482 \times 52 \text{ weeks} \times 1,532 \text{ companies} = \$61,364,134$
Equivalent to the following number of hot meals: $\$61,364,134 / \$20 = 3,068,206$

4. Reviewing the current work of the government

4.1 The Food Wise Hong Kong campaign has not succeeded in raising awareness about donating food among food companies.

Facilitating food donations from establishments with surplus food to charitable organisations in the community is one of six objectives of the Food Wise Hong Kong campaign initiated by the government at the end of 2012. As of 15 November 2013, 314 organisations and companies have signed the Food Wise Charter, promising to “support food donation activities whenever possible”. The “Good Practice Guide” issued to the food and beverage industry appears only to have had a limited impact.⁷ Very few respondents to our survey (5.8%) were very or quite knowledgeable about how food donations work (see Annex Table 7 or section 5.3.4). This shows that the campaign has not succeeded in raising awareness about donating surplus products among food companies.

4.2 Product liability represents a topic of concern when it comes to donating surplus food.

By donating surplus items to food banks or charities, companies fulfil their duty to help protect the environment and assist poor people. However, our study showed that most of the food companies were not donating their surplus items because of worries about product liability. The government has not responded proactively to these worries. Instead, it has only encouraged food donors to set up private agreements with recipients.⁸ Obviously, this is not enough to ease the fears of the companies and recipient organisations, and as a result, a lot of edible food is wasted every day.

4.3 The government does not provide any support to food banks.

Currently, five food banks receive government subsidies. They provided food assistance to 87,000 people from 2010 to 2013. The recipients included low-income workers and the unemployed. Although the government is set to provide an additional \$200 million to support their work, the money only goes to purchasing food, not supporting programmes to salvage and reuse food. In fact, many food banks and unsubsidised food charities lack the manpower and resources needed to rescue the surplus items donated by food companies.

5. Oxfam calls for policy changes

GROW is Oxfam’s campaign for a future where everyone on the planet always has enough to eat. It is encouraging people to make positive changes in their own lives and to press governments and companies to take urgent action. Saving food is one of the GROW Methods to mitigate climate change and fix the broken food system. According to a 2012 Oxfam report, “The food transformation: Harnessing consumer power to create a fair food future”, of all the fresh apples bought in Brazil, India, Spain, the Philippines, the United

⁷ See the Food Wise “Food waste reduction good practice guide” for the food and beverage sector: http://www.foodwisehk.gov.hk/pdf/GPGuide_Hotel_en.pdf

⁸ Legislative Council Question 8: Food dumped by supermarkets (4 November 2012) <http://www.info.gov.hk/gia/general/201211/14/P201211140197.htm>

Kingdom and the United States, one in six ends up in the garbage can, resulting in 5.3 billion wasted apples. The greenhouse gas emissions attributable to this discarded fruit roughly equal the amount produced from burning 10 million barrels of oil. The benefits of preventing food from going to waste are twofold: We address the problem of hunger among poor people and cut down on the greenhouse gases which are emitted when food rots in landfills. This, in turn, mitigates climate change so that small-scale farmers are impacted less by extreme weather. This report shows that food companies in Hong Kong are wasting a lot of food. Oxfam calls on the government, food companies and consumers to take action to bring about positive changes for food justice.

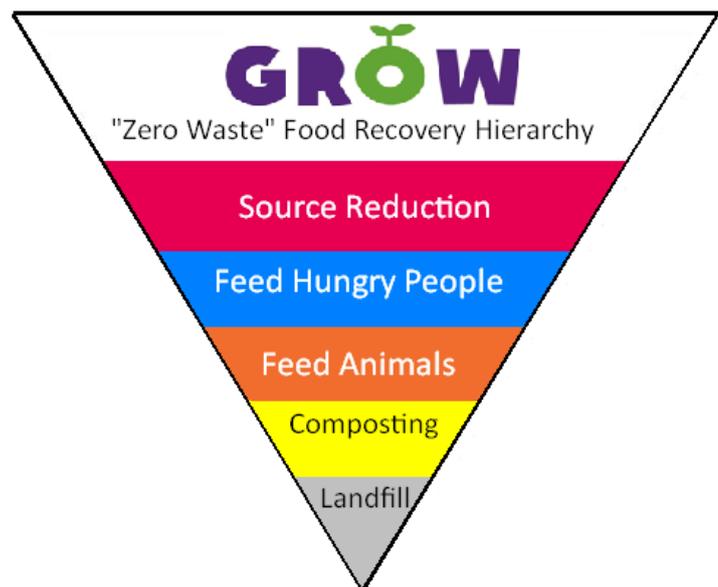
5.1 The government should consider practices abroad and establish principles on reducing food waste and using surplus products.

Food is cultivated from precious natural resources and should not be wasted. It is a basic necessity. In discussing how to cut back on food waste, we first need to establish some basic principles in order to prioritise the action that we have to take. We looked to the US Environmental Protection Agency's food recovery hierarchy to create our own GROW Zero Waste Food Recovery Hierarchy

(see image, right). To ensure we maximise the utility of the nutritional value in food, we suggest using excess products in the following order.

The first priority is waste reduction at the source. Food companies should produce and sell only as much as their customers order in order to prevent wastage. The second priority is ensuring that everyone has enough to eat. Tens

of thousands of people in Hong Kong still need to rely on food assistance to feed themselves and meet their nutritional needs. Food companies should donate the products which they cannot sell, but which is still edible, to food banks or charities as soon as is feasible. They should also distribute it or give it to soup kitchens so they can turn it into hot meals for those in need. The third option is feeding animals. If the items are not suitable for donating to charities, food companies can consider giving them to organisations that can turn them into feed, for example, for fish or pigs.⁹ In this way, the material can return to the food production system. The fourth option is turning the food into fertiliser. Surplus items that are not suitable for consumption, for example, bones and rotten fruit, can all be used as fertilisers for farming or planting. Finally, the fifth option: incinerating the food or turning it into landfill material. If companies have followed the preceding steps above, their surpluses



⁹ There are already organisations equipped to turn food waste into raw materials. For more details, please refer to the Hong Kong Organic Waste Resource Centre. www.hkowrc.com

should have already been reduced by a lot. As for what remains, they can send it to an incinerator or landfill.

5.2 Companies should set up policies promoting zero food waste.

Oxfam calls on food companies to set up policies that promote zero food waste. These should include policies that ensure the companies conduct regular inventory checks, provide accurate data to the public about their surpluses, and issue clear guidelines to staff on how to handle excess products.

Food companies should donate surplus items at the earliest convenience and establish a strong relationship with food charities, instead of turning to donations as a last resort.

5.3 The government should take the lead in setting up a system for collecting donated food at the district level and redistributing it to food banks and charities.

The government should take the lead in reducing food waste and support organisations involved in this work. It should create a matching system to link up food companies that have surplus products to donate with charities in the same districts that collect such items. The government announced in the most recent policy address a proposal to set up "community green stations" in each of the city's 18 districts. Oxfam believes the government should expand their scope to include the collection of surplus food. They can become centralised collection points where companies can deposit their excess products. This would help food banks and charities cut down on the transport costs that they incur when collecting donated items, and make it more convenient for poor people in the community to access the food.

The government should also increase its support for food banks and charities so that there will be more programmes to collect and use surplus food. The government should provide more funding to these organisations through, for example, the Community Care Fund, so that they can meet their manpower needs and lower their transport costs. It should also do more work in promoting these organisations as part of the Food Wise Hong Kong campaign in order to increase the public's and the food industry's understanding of how surplus items can be collected and used.

5.4 The government should take steps to clarify the issue of product liability for donated food to encourage food companies to donate their surplus products.

Oxfam understands the concerns and considerations that businesses may have when it comes to donating their surplus food. The agency suggests the government consider examples in other countries, for example, the Bill Emerson Good Samaritan Food Donation Act in the US. It should consider forming legislation to encourage food donations, clarifying the issue of product liability for donated food, and urging more companies to give their surplus items to charities.

5.5 Consumers should buy only what they need and monitor food waste at food companies.

To reduce food waste, Oxfam calls on consumers to take on the GROW Methods, five simple principles for buying, preparing and eating food. Under the method for saving food, we suggest consumers carefully plan their meals, purchase the exact amount of food they need, and eat their leftovers. Consumers can join Oxfam in monitoring how food companies handle their surplus products and urge them to make improvements.

Annex

Chart 1: Whether food companies and chain retailers have measures to use or reduce the volume of surplus food (%)

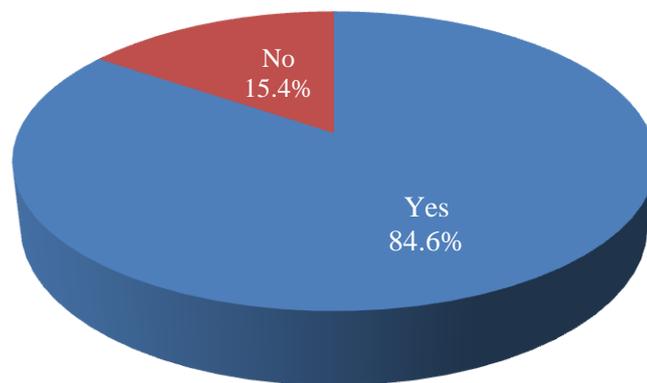


Chart 2: Whether food companies and chain retailers with measures in place discard their surplus food as a standard practice (%)

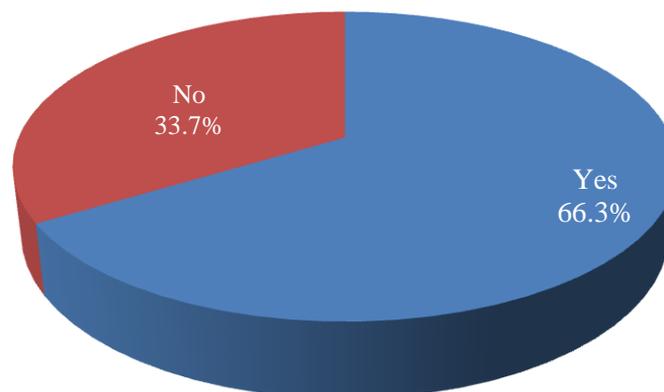


Table 1: Surplus food handling at chain retailers (%)

	Bread	Cakes	Microwave food
% of chain retailers surveyed that indicated that they had these categories of surplus food	84.9	80.9	60.4
% of retailers with surplus items in the above categories that used to the following methods to dispose of them (multiple responses possible)			
<i>Discarding it</i>	90.1	91.9	89.6
<i>Discount sales</i>	30.2	31.2	34.4
<i>Returning it to suppliers</i>	5.3	2.3	8.3
<i>Distributing it to staff</i>	1.1	1.1	3.5

<i>Donating it to non-profit and social service organisations</i>	0.5	0.5	0.8
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Table 2: Surplus food handling at food manufacturers) (%)

	Grain products	Frozen meat	Vegetables
% of food manufacturers surveyed that indicated that they had the following categories of surplus food	61.6	20.9	12.6
Conditions under which the products would be defined as surplus food (multiple responses possible)			
<i>Unattractive appearance</i>	45.0	60.0	66.9
<i>Quality below standard</i>	19.3	60.0	33.5
<i>Overproduction</i>	42.1	20.0	33.5
<i>About to expire</i>	32.1	20.0	66.9
<i>Sample products</i>	6.4	-	-
Methods of handling the surplus food (multiple responses possible)			
<i>Discarding it</i>	45.0	78.8	66.5
<i>Discount sales</i>	32.1	21.2	-
<i>Distributing it to staff</i>	32.1	49.4	66.9
<i>Donating it to non-profit and social service organisations</i>	19.3	-	33.5
<i>Others (e.g. recycling, using it as fodder and distributing it to residents nearby)</i>	16.4	0.0	33.5

Table 3: Surplus food handling during the process of wholesale distribution (%)

	Fruits	Vegetables	Frozen meat
% of food companies that indicated that they had the following categories of surplus food during wholesale distribution	27.2	24.5	20.1
Conditions under which the products would be defined as surplus food (multiple responses possible)			
<i>Unattractive appearance</i>	64.9	89.6	47.9
<i>Quality below standard</i>	28.1	16.4	32.2
<i>About to expire</i>	47.4	13.5	44.2
<i>Surplus inventory</i>	-	-	19.9
<i>Returned by retailers</i>	-	13.3	16.0
Methods of handling the surplus food (multiple responses possible)			
<i>Discarding it</i>	53.8	30.3	51.8
<i>Discount sales</i>	65.7	29.7	40.2

<i>Distributing it to staff</i>	24.3	33.0	36.2
<i>Donating it to non-profit and social service organisations</i>	21.9	43.6	23.9
<i>Others (e.g. distributing it to residents nearby and the elderly)</i>	-	10.0	-

Table 4: Value of the surplus food generated by food companies per year (%)

	%
Less than \$1,000	4.4
\$1,000-\$4,999	27.8
\$5,000-\$9,999	6.6
\$10,000-\$19,999	5.3
\$20,000-\$39,999	7.3
\$40,000-\$59,999	5.6
\$60,000-\$79,999	3.1
\$100,000-\$199,999	4.8
\$200,000 or more	0.8
No information provided	34.3
Total	100.0
Average value per year (excluding food companies providing no information)	\$26,767

Table 5: Value of the surplus food generated by chain retailers per week (%)

	%
Less than \$200	16.8
\$200-\$399	14.0
\$400-\$599	7.6
\$600-\$799	16.3
\$800-\$999	7.8
\$1,000-\$1,499	5.8
\$1,500 or more	0.9
No information provided	30.8
Total	100.0
Average value per week (excluding chain retailers providing no information)	\$482

Chart 3: Whether food companies and chain retailers donate food to non-profit or social service organisations (%)

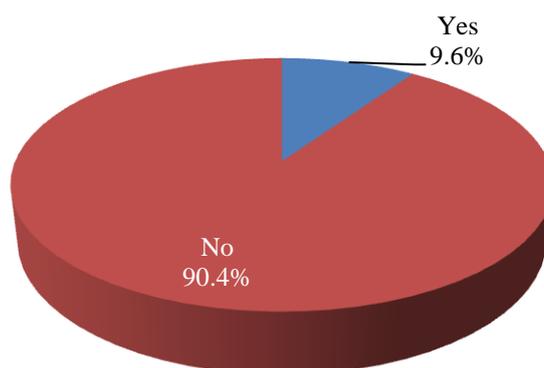


Table 6: Reasons for not donating food to non-profit or social service organisations (multiple responses possible) (%)

Main reasons	%
Worries about product liability	67
Insufficient resources and manpower	22.2
Lack of knowledge about food donation channels	18.6
Difficulties in bearing extra transport costs	15.1
Lack of support from the government	12.0
Criticisms from non-profit or social service organisations about the donated food	4.0
Others (e.g. decision made by headquarters, too little surplus food)	16.6

Table 7: Knowledgeability about food donation among food companies and chain retailers (%)

Degree of knowledge	%
Very knowledgeable	1.5
Quite knowledgeable	4.3
Moderately knowledgeable	16.1
Slightly knowledgeable	39.2
Not knowledgeable at all	30.5
No information provided	8.4
Total	100.0
<i>* Sum of those that were very or quite knowledgeable</i>	5.8