

ne'ma نعمة

المبادرة الوطنية للحد من فقد وهدر الغذاء
National Food Loss and Waste Initiative



BEHAVIORAL
SCIENCE GROUP

How the UAE Eats

Findings from
the UAE's First
National Household
Food Waste
Survey

2023

**How the
UAE Eats**
Findings from
the UAE's First
National Household
Food Waste
Survey

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ne'ma - the National Food Loss and Waste Initiative, is a response to the call to action by the President of the United Arab Emirates, His Highness Sheikh Mohamed bin Zayed Al Nahyan, to reduce food waste, encourage individual and social responsibility, and promote sustainable practices across the food value chain.

TARGET 12.3



HALVE GLOBAL PER
CAPITA FOOD WASTE

SUSTAINABLE
DEVELOPMENT
GOALS

The UAE is committed to achieving United Nations Sustainable Development Goals 12.3 targets by reducing food loss and waste by 50% by 2030 and beyond leading the regional movement towards change through the collaborative efforts of ne'ma.

Acknowledgements

This report marks a significant milestone and is proudly presented as a deliverable of the UAE's Behavioral Science Group (BSG), a specialized unit operating within the Office of Development Affairs, and the Behavior Insights Team (BIT). Their profound expertise in behavioral science played a crucial role in shaping the National Action at Scale for Reducing Food Waste in the Hospitality Sector.



Executive Summary

Executive Summary

Purpose

Food waste is a problem for the UAE, with nearly **40%** of food wasted at a cost of 6 billion AED every year. ne'ma has a mission to halve food waste in the UAE by 2030 and wanted evidence on how to best tackle this issue. Knowing that the UAE is home to over 200 nationalities and, according to UNEP, **61%** of food is wasted at the household level, we wanted to understand our food waste behaviors. To do this, we ran the first National Household Survey, collecting responses from 6,083 residents. These findings explore who wastes, what is wasted, and why, to design the ideal policy recipe for this ambitious target.

What we found

There is an appetite to cut food waste in the UAE.

The nation knows that food waste is a problem. Around **85%** consider food waste an important national issue and think reducing it is vital to national food security, a higher proportion than in other nations like the UK. They also know it's a key step in preventing climate change, as **57%** of households think throwing away edible food has a high negative impact on the planet, almost as bad as driving petrol cars. Most residents believe that both individuals and the government have an important role to play. In fact, **87%** of residents think everyone has a responsibility to minimize their food waste.

So, if there is appetite to cut food waste, why does it remain high?

Households find it difficult to reduce their food waste because it is not just about making one green choice, like switching to a more sustainable car, but involves many complex everyday behaviors. In fact, **67%** of citizens and **55%** of expatriates say they find it difficult to avoid food waste.

Let's break down why it is hard to cut food waste for households

The UAE has a culture of eating out and ordering in. Yet, when the UAE places orders, they may not consider how it will affect food waste.

Around **57%** of residents order takeaway meals more than once a week, compared to only **14%** of Australians. However, many order more than needed for the occasion, as **38%** say they over order, but only **53%** take leftovers home.

In the home, fresh produce is more likely to be wasted.

The most commonly wasted items in the last 7 days were bread and bakery items (**36%**), vegetables (**34%**), and fruit (**31%**).

High food waste may be due to impulsive shopping habits...

We see **52%** report buying food based on what is on special offer, and **25%** say they buy food without knowing what to use it for.

...or because households lack the right information on how to reduce their food waste.

For example, most households (**65%**) reported checking 'use by' and 'best before' dates before purchasing food, but only 16% knew what these terms meant.

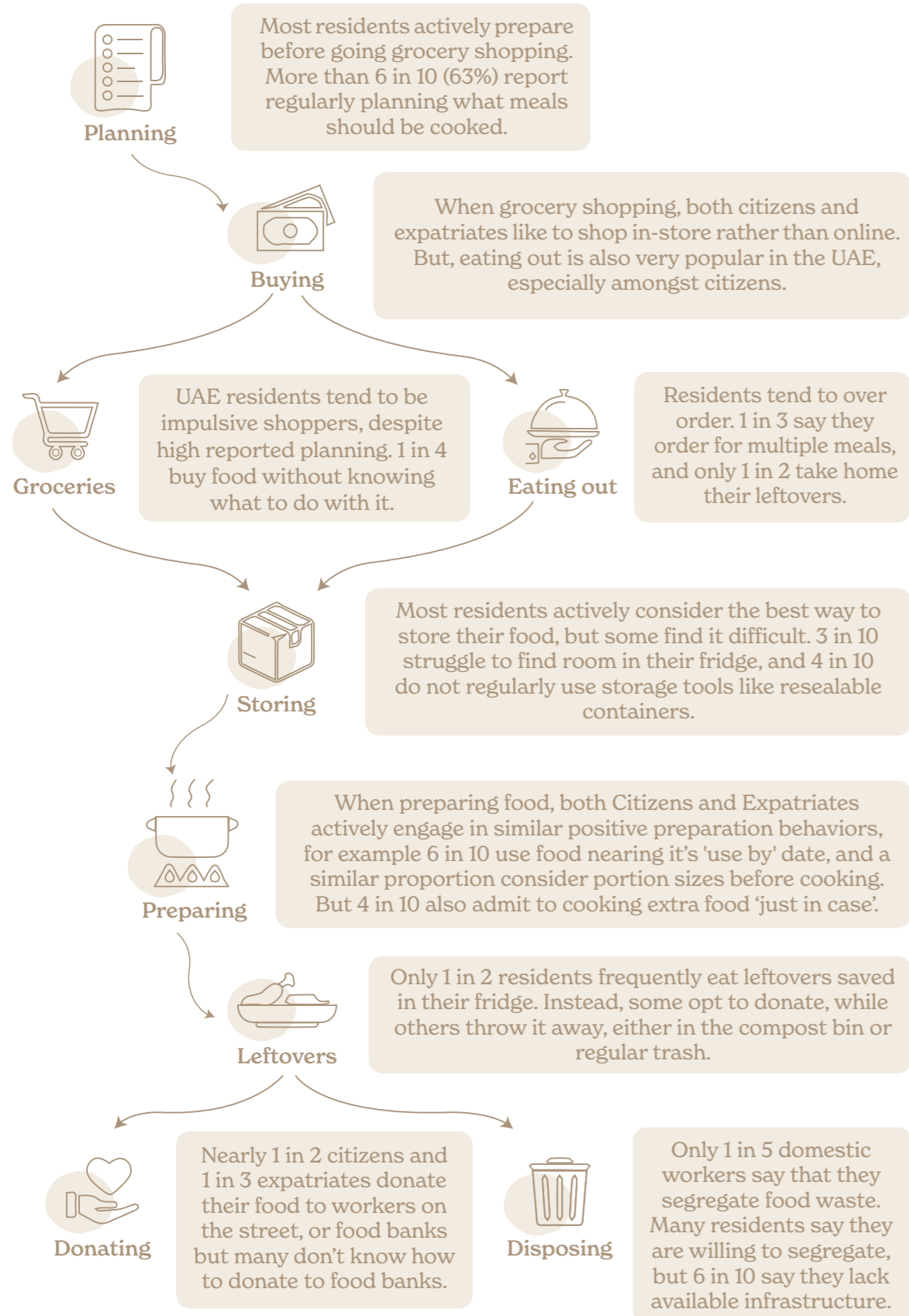
Lastly, households may not find it easy to do things like segregating or donating because of the lack of available options.

In fact, **63%** say they do not segregate because there is no easy way to do so in their area. Offering clear instructions on safely reusing leftovers is crucial, especially because **42%** of people avoid doing so due to health concerns.

But the nation is hungry for solutions!

Residents feel that individuals have a big role to play, supported by a wider policy shift. They showed high levels of support for different solutions, but the most popular was the introduction of food waste collection by municipalities (**77%**).

How the UAE Eats



A Menu for Action

Educate residents with specific knowledge.

Residents need more knowledge on how to better manage food. For example, only 44% of people use storing tools like sealable containers.

Lack of awareness and motivation don't seem to be the issue; instead, residents need specific information on how to reduce food waste.

Action is needed to promote a better understanding of key information on food packaging. We see there is a widespread misunderstanding of 'sell by' and 'use by' dates, and 48% don't regularly check labels for storage information.

Provide practical solutions.

We see there is a big issue with over-ordering, so collaborations with delivery apps could help residents order the right amount, a solution supported by 70% of respondents.

Give residents easy and timely solutions that can help them order and shop more mindfully.

When in-store, we can help residents with prompts and tools to reduce impulsive buys. This is key because 70% of the nation still shops in-store. Since 38% of residents say they don't regularly make shopping lists, it may be helpful to provide list templates and pencils at store entrances.

Nourish wider policy solutions.

The nation thinks that the hospitality sector has a large role to play in reducing food waste, with 60% saying that restaurants are responsible for this and 75% supporting the inspection of businesses to ensure they don't waste food.

The UAE is calling for partnerships to activate broader change.

There is also an opportunity to provide training to domestic workers to promote positive behaviors. For example, only 38% measure ingredients when cooking. Residents need available options for segregation and composting. 41% of citizens, 31% of expatriates, and 16% of domestic workers say they segregate, but 63% of those who don't say it is because of the lack of available options.

Section 01

Introduction

1.1. About ne'ma

ne'ma - the National Food Loss and Waste Initiative, is a response to the call to action by the President of the United Arab Emirates, His Highness Sheikh Mohamed bin Zayed Al Nahyan, to reduce food waste, encourage individual and social responsibility, and promote sustainable practices across the food value chain.

Established in 2022, ne'ma aims to address overproduction and overconsumption and build new standards that can contribute to the reduction of food loss and food waste, reconnecting with the country's deep-rooted traditional values of social responsibility and mindful stewardship of national resources.

The establishment of ne'ma is a major milestone in the UAE's adherence to fulfill its commitment to reducing food loss and waste, in line with the United Nations' Sustainable Development Goal (UNSDG) 12.3, as well as the UAE National Food Security Strategy 2051.

1.2. About the BSG

This work is the result of a flagship partnership with the UAE's Behavioral Science Group (BSG), a specialized unit within the Office of Development Affairs. BSG combines behavioral science expertise with a deep understanding of local policy and context, to design and test practical and innovative solutions to a range of challenges.

1.3. Purpose

Household behaviors are a key driver of the food waste problem, with **61%** of food wasted at the household level, according to UNEP. But current data relating to household food waste is limited. To tackle the problem, ne'ma - the National Food Loss and Waste Initiative, is driving efforts to achieve the UAE's target of reducing food waste by **50%** by 2030. To do this, ne'ma aimed to understand the key drivers of household food waste in the UAE.

This first national household survey, delivered in partnership with the Behavioral Science Group, provides data-driven insights on how households consume and waste food, and how we can tackle the problem.

The survey had five objectives:

- Explore how households buy, store, cook, and dispose of food.
- Gain insights into people's perceptions of - and attitudes towards - food waste.
- Provide evidence for policymakers on public support for solutions to tackle food waste and how to communicate with the public.
- See how the UAE compared internationally to comparable surveys from Australia, the UK, and the EU.
- Provide a solid baseline upon which to assess progress over time.

This report is intended for COP28 delegates, ne'ma partners, and other interested parties to take away and understand more detail about the key food waste trends in the UAE.

1.4. Methodology

We conducted a nationwide survey of 6,083 UAE residents, from June to September 2023. We recruited an online sample of 4,037 residents and complemented it with an in-person sample of 2,046 residents to ensure that the findings reflected the views of the Northern Emirates, high-income expatriates, chefs, and domestic workers.

In this key findings report, groups recruited to increase representativeness of our sample such as those from the Northern Emirates and high-income expatriates are integrated into our overall sample, while chefs and domestic workers remain a separate sample solely interviewed in-person. Therefore, key results include a total sample of 5,513 respondents.

1.5. Report overview

This report details our key findings in three digestible sections. First, we understand the landscape of food waste attitudes and support for the UAE's national mission to reduce food waste. Next, we scope the extent of the problem by estimating self-reported household food waste, why food is getting wasted, and who is responsible. Finally, we delve into how the UAE eats to look at specific actions households are taking, identifying areas where households could improve to reduce their food waste.

Residents

We mean everyone surveyed across the UAE.

Citizens

We mean Emirati Citizens.

Expatriates

We mean people who live in the UAE, but are not Emirati, excluding domestic workers.



Section 02

Appetite to cut food waste in the UAE

Is the UAE ready to cut food waste?



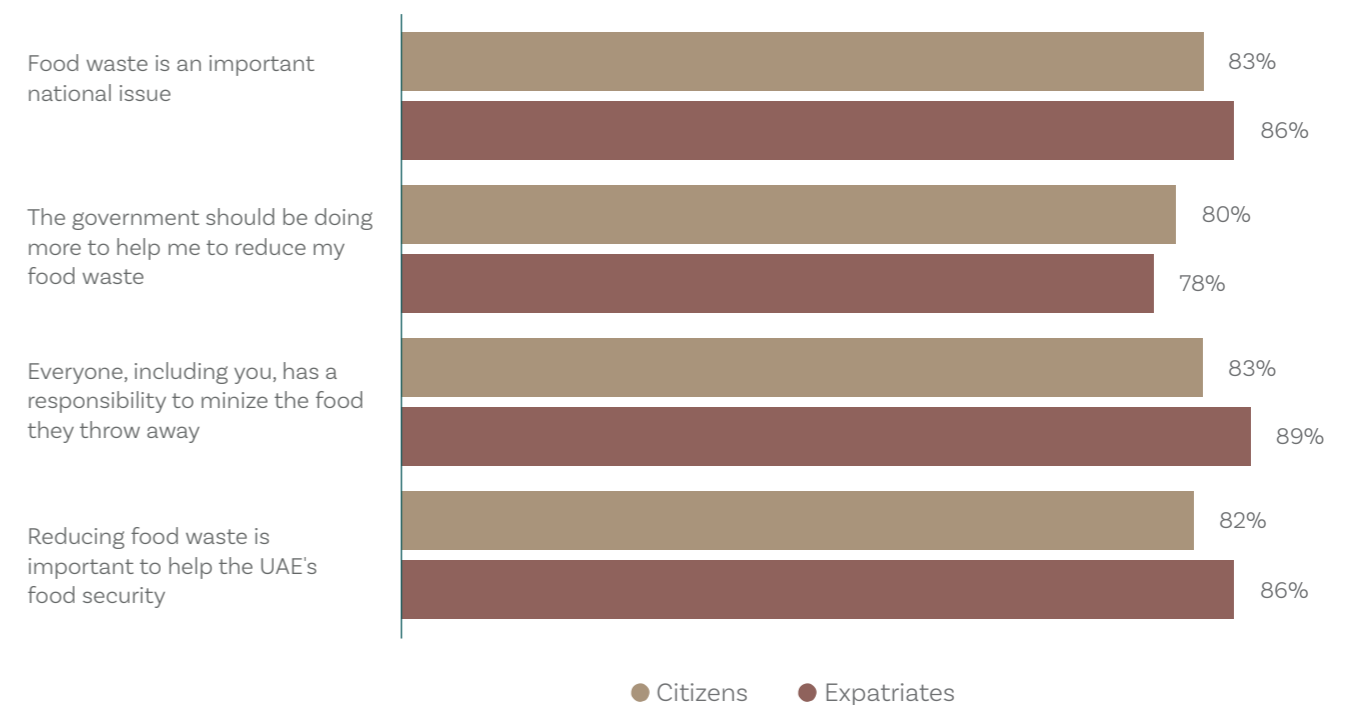
2.1. There is appetite to reduce food waste.

There is a significant opportunity to change food waste behaviors.

Households have an appetite for change, recognize it as a crucial step to being greener, and are already discussing this critical issue.

More than 8 in 10 (**85%**) consider food waste an important national issue and vital for food security. Nearly 9 in 10 (**87%**) residents say everyone has a responsibility to minimize their food waste. These figures are comparable to the UK survey, where **81%** thought food waste was a national issue (in the UK), and **92%** believed everyone had a responsibility to minimize their food waste.

Q: To what extent do you think that...? ⁽¹⁾



Graph 1.1. - Support for Food Waste Reduction: Agree

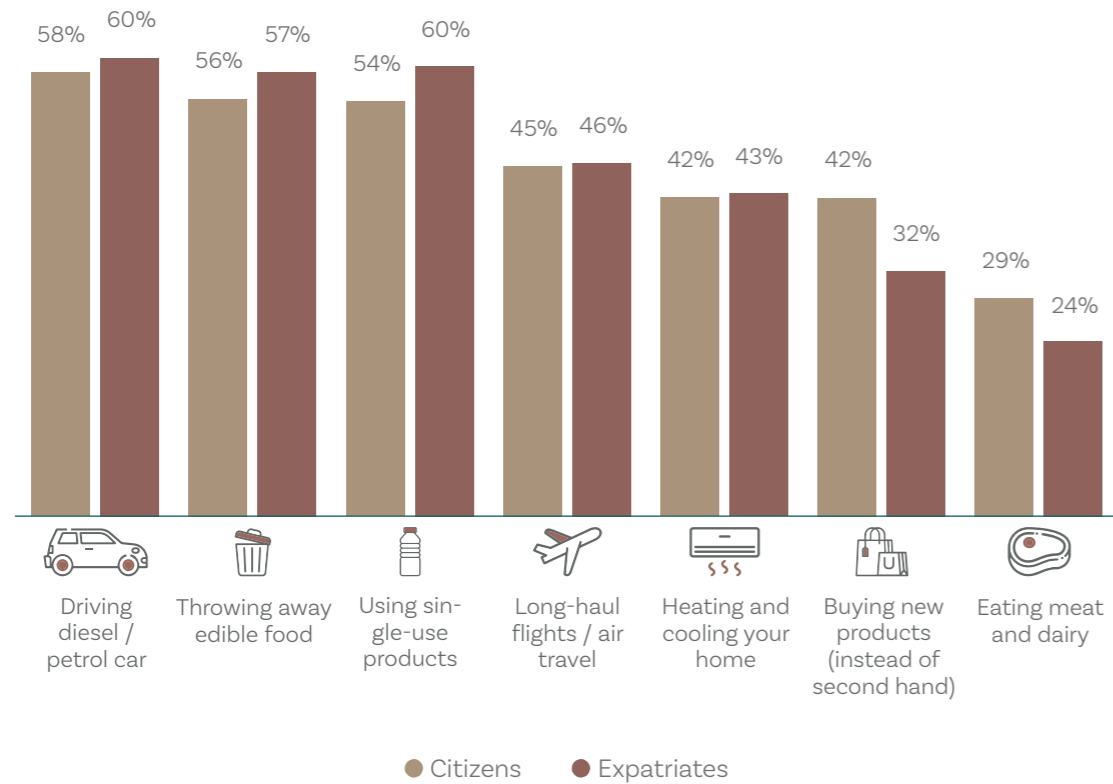
1,458 Citizens, 4,055 Expatriates

(1) Answer choices consisted of Not at all / A little / Moderately / Very much. Data shown is 'Moderately' and 'Very Much' combined

Residents also seem to know that reducing food waste is key to being more sustainable.

They recognize that reducing food waste is one of the most impactful actions to protect our planet compared to other environmentally friendly behaviors.

Q: How much of a negative impact do you think the following behaviors have on the environment? ⁽²⁾



Graph 1.2. - Impact of Behaviors on the Environment: High Impact

1,458 Citizens, 4,055 Expatriates

(2) Answer choices consisted of No impact at all / Very low impact / Low impact / Moderate impact / High impact / Very high impact. 'High Impact' represents 'High impact' and 'Very high impact' combined

2.2. The nation is motivated to reduce their food waste but faces daily challenges.

Across the nation, people show many of the right attitudes, but they also accept there are daily challenges to tackling this problem.

Across the UAE, people recognize the need to reduce food waste, as around 8 in 10 citizens (76%) and expatriates (81%) say they prioritize minimizing their food waste. A similar proportion reports that they are already making more of an effort to reduce their food waste.

Guilt, money, and the environment were common motivations to reduce food waste for all groups. These highlight important themes from which to create effective food waste reduction campaigns.

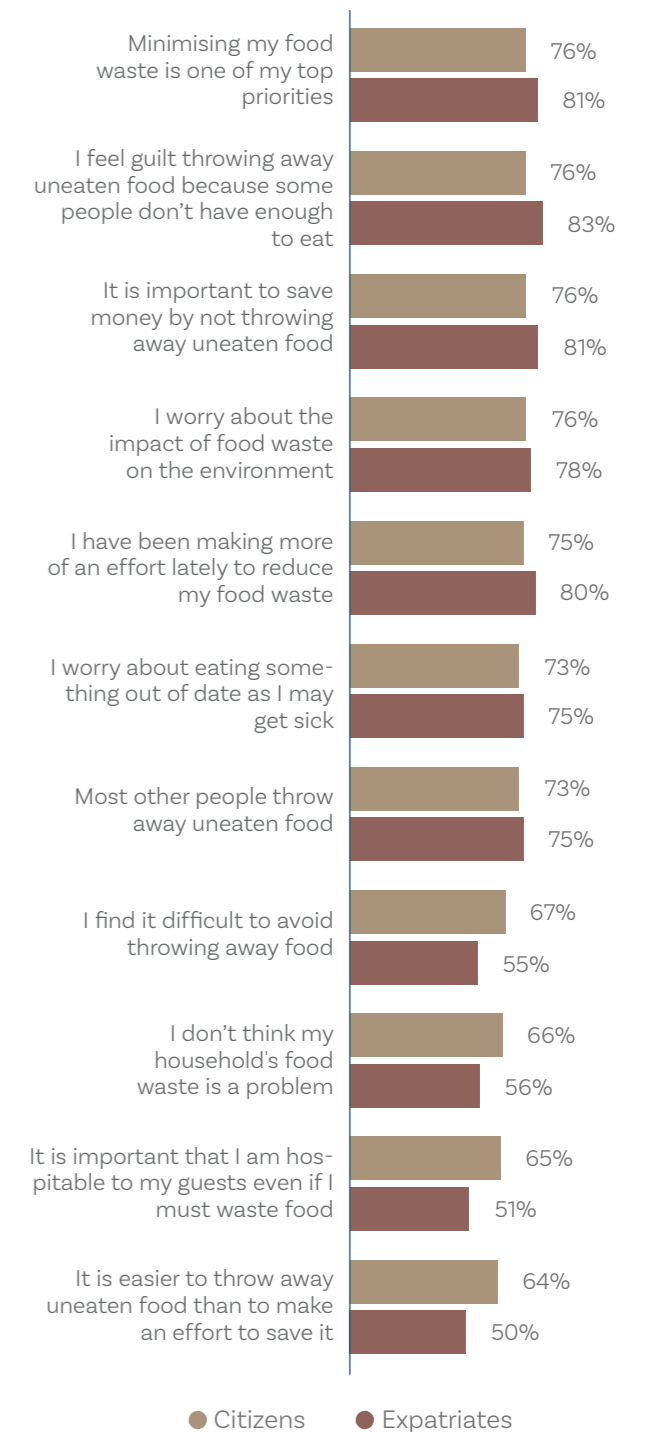
Being hospitable was an important barrier for all residents, but particularly among citizens. For example, more than 6 in 10 (65%) citizens reported the importance of being hospitable compared to 5 in 10 (51%) expatriates. Interestingly, high-income expatriates do not report the same hospitality pressures (55%), but more than 7 in 10 (72%) domestic workers, similarly to citizens, also considered hospitality to be important.

Q: To what extent do these statements apply to you... ⁽³⁾

Graph 1.3. - Personal Food Waste Attitudes: Agree

1,458 Citizens, 4,055 Expatriates

(3) Answer choices consisted of Not at all / A little / Moderately / Very much. Data shown is 'Moderately' and 'Very Much' combined



Section 03

How does the UAE waste food?

Why does food go to waste, what types of food are wasted, and who is responsible?



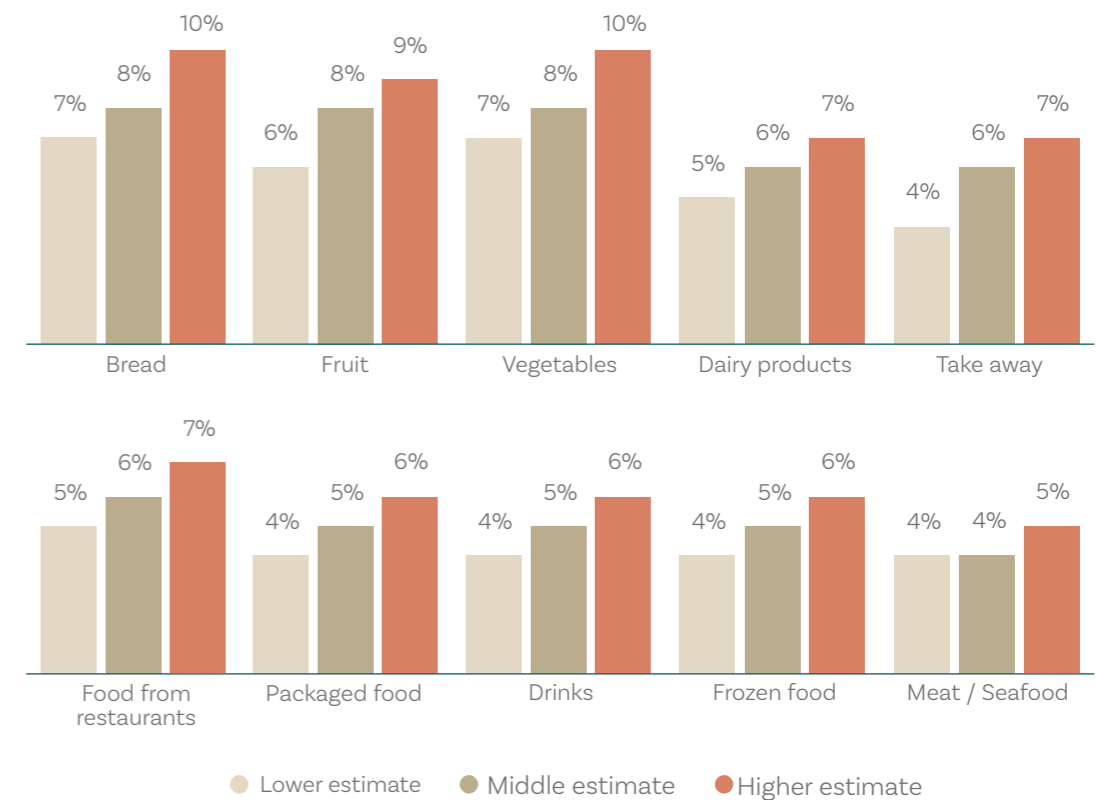
3.1. Fresh produce and ordered food often gets wasted. Especially among Citizens.

Overall, the UAE reports low levels of household food waste.

Considering that 38% of food prepared in the UAE is thrown away, the fact that 7-10% of bread or bakery items or 4-5% of meat and seafood are being thrown away appears low but is not unexpected. Self-reported food waste is often low, as seen in both the Australian and UK surveys.

Bread, fruit, and vegetables are wasted more than fish and meat. Across all groups surveyed, the most commonly wasted items in the last 7 days were bread and bakery items (36%), vegetables (34%), and fruit (31%), while meat and seafood were thrown away less. This is positive news, given that meat and seafood have higher carbon footprints than other more commonly wasted items.

Q: Approximately what proportion of the food that you bought in these categories ended up being uneaten and thrown away? ⁽⁴⁾



Graph 2.1. - Estimated Food Waste

1,458 Citizens, 4,055 Expatriates

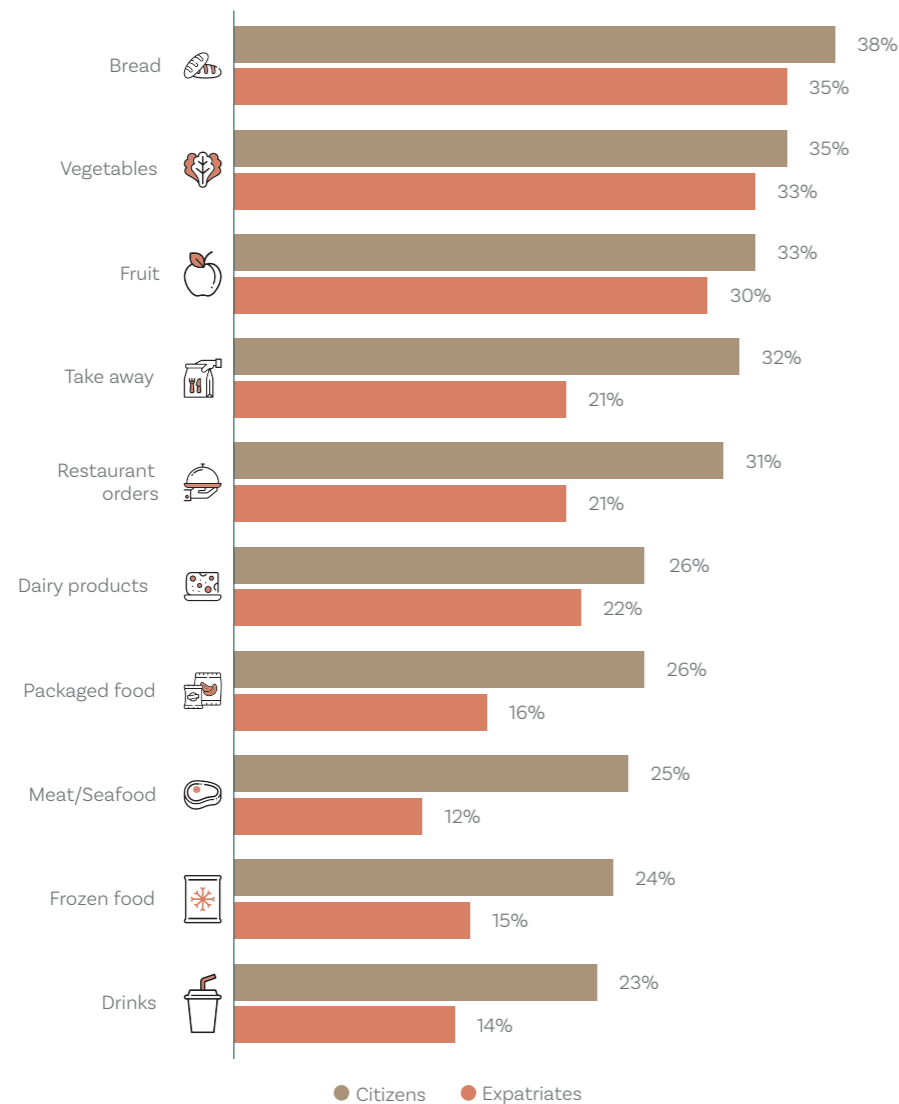
(4) Answer choices consisted of Not at all / A little / Moderately / Very much. Data shown is 'Moderately' and 'Very Much' combined

Fresh produce and ordered food often gets wasted. Especially among Citizens.

Citizens were more likely to throw away food than expatriates.

For example, 31% of citizens report throwing away food ordered at restaurants, compared to 21% of expatriates.

Q: Thinking about the past seven days, which of the following food purchases ended up being uneaten and thrown away? ⁽⁵⁾



Graph 2.2. - Purchased Food That Has Been Thrown Away

1,458 Citizens 4,055 Expatriates

(5) Answer choices consisted of No / Yes. Data shown is 'Yes'

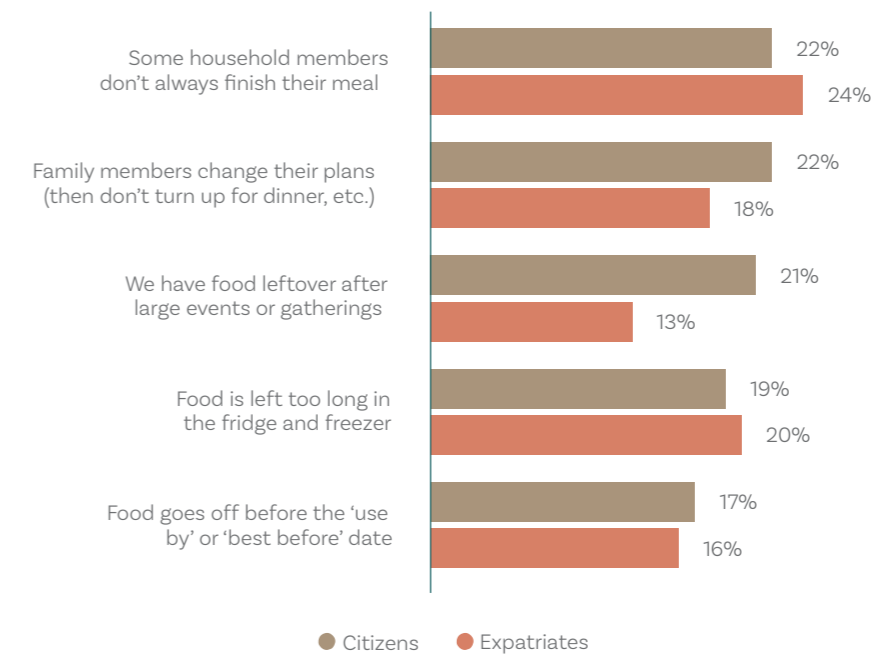
Fresh produce and ordered food often gets wasted. Especially among Citizens.

Unfinished meals, poor planning, and out-of-date food drive food waste.

Residents say the main reasons for food waste are people not finishing their meals, changing plans, or food being left too long and going off. Interestingly, a higher proportion of citizens said they had leftovers after large events or gatherings than expatriates (21% vs. 13%).

The Australian survey reported the same top reason for food waste: some household members not finishing their meal. Food is left too long in the fridge and freezer, and food goes off before the use-by date also featured in their top five. This suggests UAE households face many similar behavioral problems when it comes to food waste as in other developed countries.

Q: Why do you think food remains uneaten in your household? ⁽⁶⁾



Graph 2.3. - Reasons Why Food Is Wasted

1,458 Citizens 4,055 Expatriates

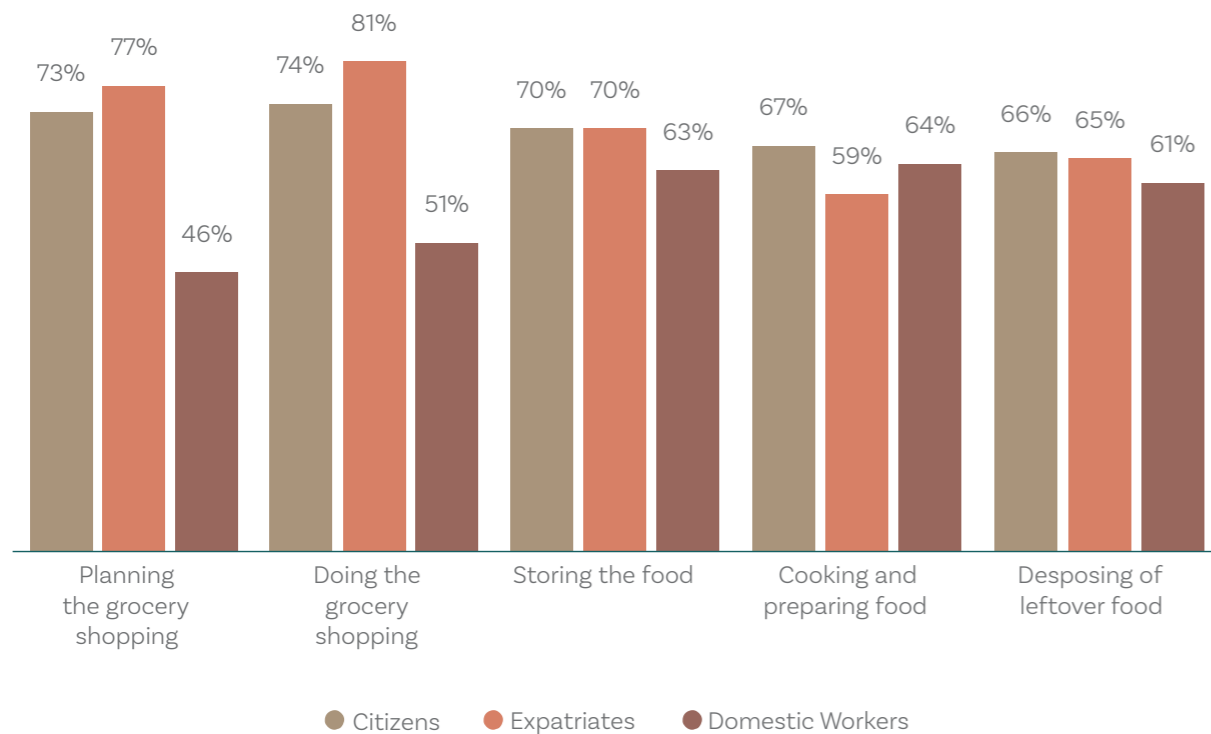
(6) Multiple choice question. Data shown is this answer was selected.

3.2. Who's responsible across the food journey?

Residents have more responsibility over planning and grocery shopping than domestic workers, but they oversee all stages.

Citizens and expatriates both report more responsibility over planning and grocery shopping (73-81%), and slightly less responsibility for storing, cooking, preparing and disposing of food (59-70%). Domestic workers' report more responsibility for later stages of the food journey as they store, prepare and dispose of food.

Q: In your household, to what extent are you responsible for...? ⁽⁷⁾



Graph 2.4. - Responsibility Within The Home: Equally or Mainly Responsible

1,458 Citizens 4,055 Expatriates, 273 Domestic Workers

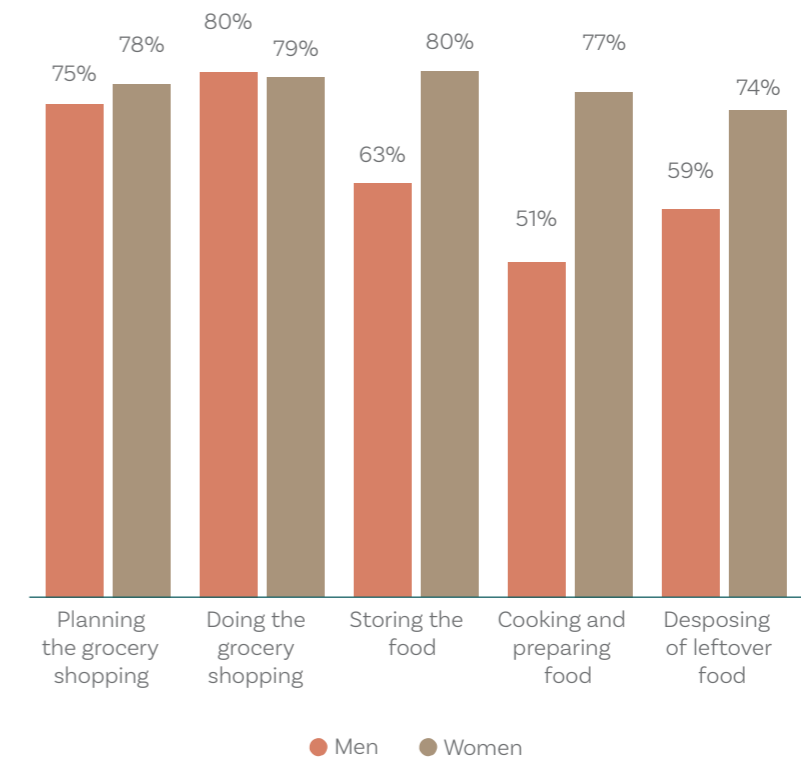
(7) Answer choices consisted of Not at all / Partly / Equally / Mainly Responsible. Data shown is 'Equally' and 'Mainly' combined.

Who's responsible across the food journey?

Women say they are more responsible than men for storing, cooking, and disposing of food.

While responsibility for planning and shopping is shared fairly equally between men and women, women said they were more responsible across the whole food journey, from planning grocery shopping all the way through to disposing of food.

Q: In your household, to what extent are you responsible for...? ⁽⁸⁾



Graph 2.5. - Food Responsibility Within The Home: Equally or Mainly Responsible

3,239 Men, 2,274 Women

(8) Answer choices consisted of Not at all / Partly / Equally / Mainly Responsible. Data shown is 'Equally' and 'Mainly' combined.

3.3. Behavioral insights on how the UAE wastes food.

Impulsive ordering and buying are a problem.

Combat impulsive over ordering.

Our behaviors are often shaped by what we find attractive and salient. For example, supermarkets often display fresh vegetables at the entrance to encourage more people to buy them. But we are not always nudged for good.

For example, food delivery app notifications for special offers can make us order more food.

Findings from this survey consistently show that ordering take-out may contribute to the problem. It is done often, and much is wasted. This is because food delivery platforms are designed to make us order lavishly and impulsively. Timely nudges could be added to delivery platforms to promote mindful ordering, an intervention supported by around 70% of residents. This has already been shown to be effective in reducing the number of calories ordered.

Provide practical solutions.

Fresh produce can be easier to waste because it's attractive to buy but has a shorter shelf life. When it comes to bread and pastries, evidence suggests encouraging more homes to freeze and toast could be an effective solution. For fruit and vegetables, nudges may include providing clear and actionable instructions for storing and better guidance on how to use mature produce. For example, one nudge uses stickers on bananas to tell people how to use them when they are browning.

Section 04

How does the UAE manage food in the home?

How does the UAE plan meals, buy, store, and prepare food, and use leftovers, and what are the differences in these practices within this diverse nation?

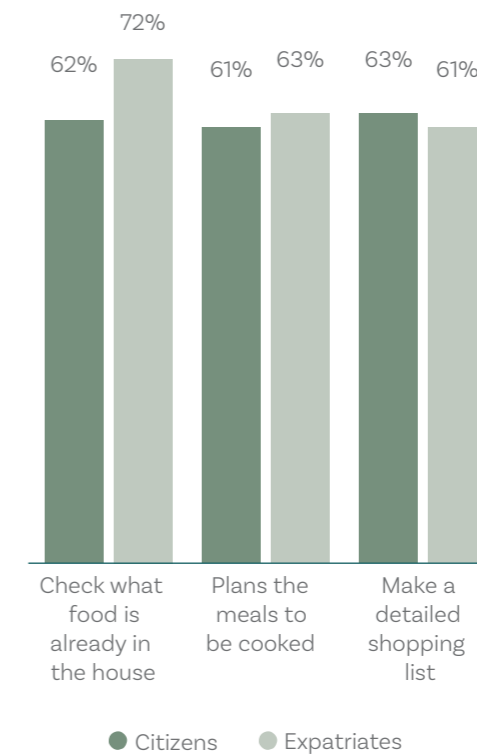


4.1. How does the UAE plan meals?

The majority of residents plan before shopping, and at a higher rate than in Australia.

62% of citizens and 72% of expatriates say they regularly check what food is already in the house. Similarly, 6 in 10 residents said they plan what meals should be cooked and make a shopping list. In Australia, 75% of respondents checked what food was already in the house, 46% planned meals to be cooked, and just 27-33% made a shopping list. Across both citizens and expatriates, checking the household's food stock and planning were seen as impactful actions to reduce food waste.

Q: Before grocery shopping, how often do you or your household...? ⁽⁹⁾



Graph 3.1. - Planning Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates

(9) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

4.2. How does the UAE buy food?

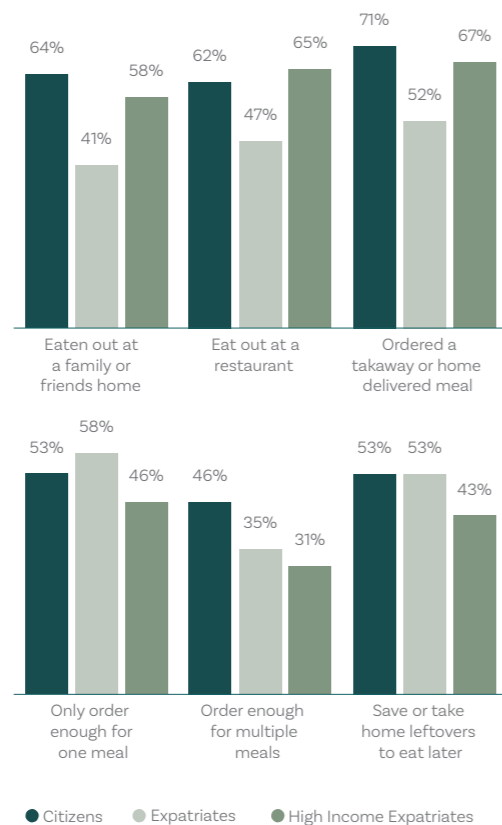
Findings suggest eating out and ordering in may be contributing to food waste in the UAE.

Eating out is common, especially among citizens and high-income expatriates. For example, around 7 in 10 citizens (71%) and high-income expats (67%) ordered a takeaway meal more than once a week. This is higher than in other high-income nations, where only 14% ordered two or more takeaway meals.

Many citizens and expats over-order when eating out. When dining out, nearly 1 in 2 (46%) citizens and 1 in 3 (35%) expatriates order enough for multiple meals, yet only half (53%) take home their leftovers.

Q (top): In the past seven days, how many times have you...? ⁽¹⁰⁾

Q (bottom): When eating out or ordering in, how often do you or your household...? ⁽¹¹⁾



Graph 3.2. - Food Ordering Behaviors: More than once in past seven days / All or Most of the Time

1,458 Citizens 4,055 Expatriates, 1,169 High Income Expatriates

(10) Answer choices consisted of Not at all / Once / Twice / 3 times / 4 to 7 times / More than 7 times. Data shown is 'Twice', '3 times', '4 to 7 times' and 'More than 7 times' combined.

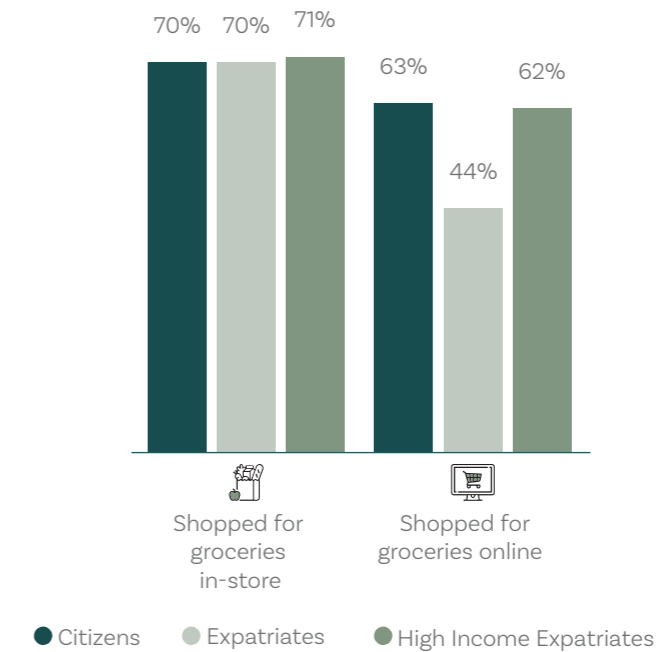
(11) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

How does the UAE buy food?

Most residents buy food in-store, not online.

7 in 10 residents (70%) reported shopping for groceries in-store, while 49% did so online. Interestingly, expatriates shop online less frequently than citizens (44% vs. 63%), but high-income expatriates tend to behave similarly to citizens.

Q: In the past seven days, how many times have you...? ⁽¹²⁾



Graph 3.3. - Grocery Shopping Behaviors: More than once in past seven days

1,458 Citizens 4,055 Expatriates, 1,169 High Income Expatriates

(12) Answer choices consisted of Not at all / Once / Twice / 3 times / 4 to 7 times / More than 7 times. Data shown is 'Twice', '3 times', '4 to 7 times' and 'More than 7 times' combined.

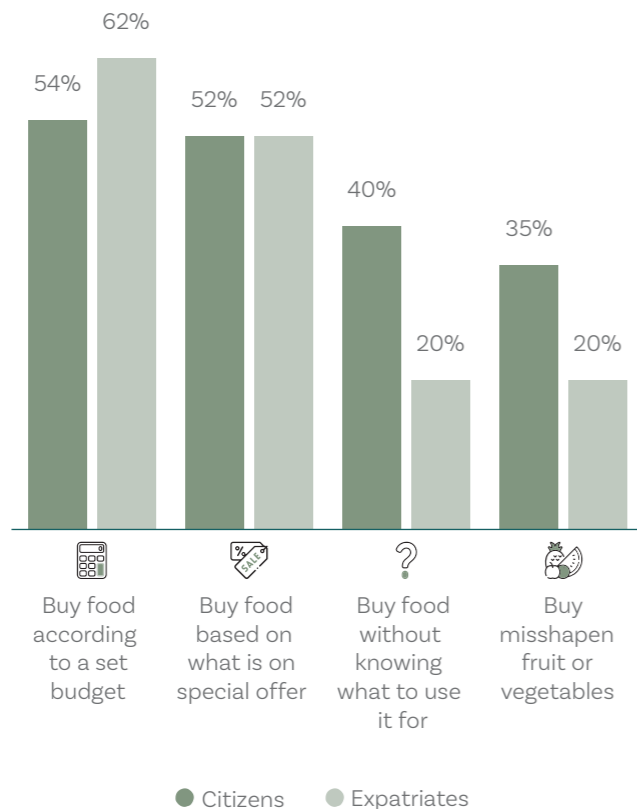
How does the UAE buy food?

UAE residents can be impulsive shoppers.

Results suggest citizens may shop more impulsively than expatriates, with **40%** of citizens and **20%** of expatriates saying they buy food without knowing how to use it. However, both citizens and expatriates display problem behaviors, as 1 in 2 residents (**52%**) report buying based on what is on special offer most or all of the time. This is slightly higher than in Australia where **42%** bought based on special offers. To address the problem, it is essential to promote better planning. One way may be publicizing that many across the nation (**63%**) plan their meals before shopping.

Residents don't often buy misshapen fruits and vegetables. Few citizens and expatriates currently buy misshapen fruits or vegetables (**35%** and **20%**, respectively), likely due to low availability or display. However, **53%** said they would be likely to buy misshapen produce in the future.

Q: When grocery shopping, how often do you or your household...? ⁽¹³⁾



Graph 3.4. - Grocery Shopping Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates,

(13) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

How does the UAE buy food?

While residents check 'use by' and 'best before' dates, only few understand them.

When grocery shopping, **61%** of citizens and **67%** of expatriates report checking this information on packaging. However, their meaning is not clear, given we tested residents' comprehension, and only 16% accurately understood both terms. In Australia, **58%** reported checking the 'use by' and 'best before' dates, and **51%** correctly understood both terms.

Q: When grocery shopping, how often do you or your household...? ⁽¹⁴⁾



Graph 3.5. - Grocery Shopping Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates,

(14) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

*- Only 15% correctly answered that the 'use by' date was 'Food should not be eaten after this date as it may be unsafe' and the 'best before' date is, 'Food is still safe to eat after this date as long as it is not damaged, deteriorated, or perished'. 43% thought that both 'use by' and 'best before' meant that 'Food should not be eaten after this date as it may be unsafe'.

4.3. How does the UAE store food?

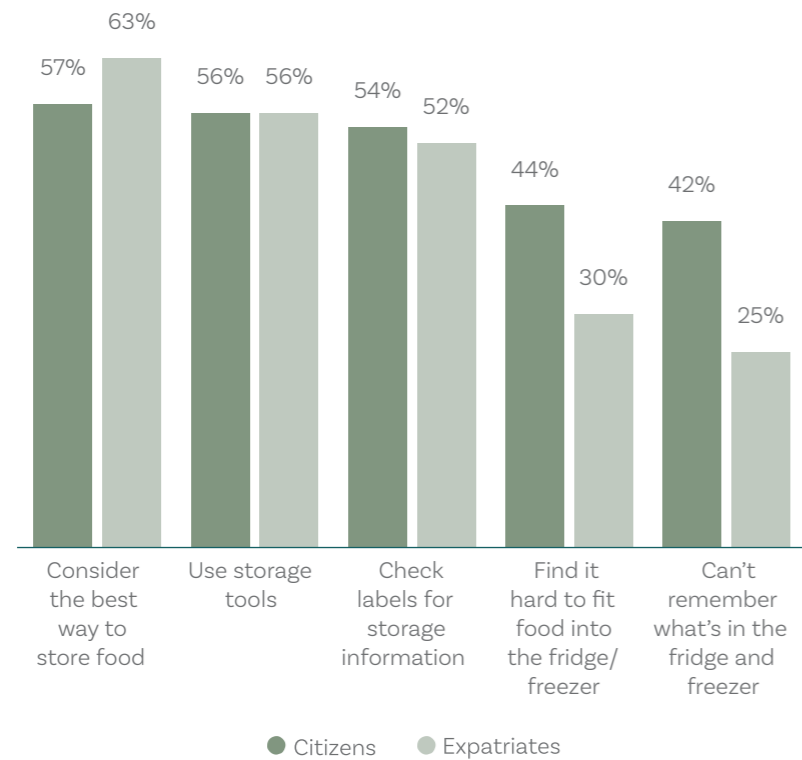
Both citizens and expatriates think about how to best store food.

More than half reported considering their storage methods, utilizing storage tools, and checking pack labels for storage information. However, over 4 in 10 (44%) citizens and 3 in 10 expatriates (30%) say they find it difficult to fit food into their fridge/freezer or remember what they put in.

There is room for improvement when it comes to storing practices. Nearly half (48%) do not regularly check pack storage information, and more than 4 in 10 (44%) don't regularly utilize storage tools like sealable containers. Encouraging citizens to better organize their fridge/freezer space or check its contents before shopping for food could help prevent overfilling. Domestic workers report similar responses to other UAE residents. Generally, the UAE reports better storage behavior than Australia, where 72% did not check pack storage information most or all of the time.

Overall, the responses regarding food storage are similar to those in Australia. Around 2 in 3 individuals in Australia (67%) and UAE (62%) believe in the importance of considering the best ways to store food.

Q: When storing food, how often do you or your household...? ⁽¹⁵⁾



Graph 3.6. - Food Storage Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates

(15) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

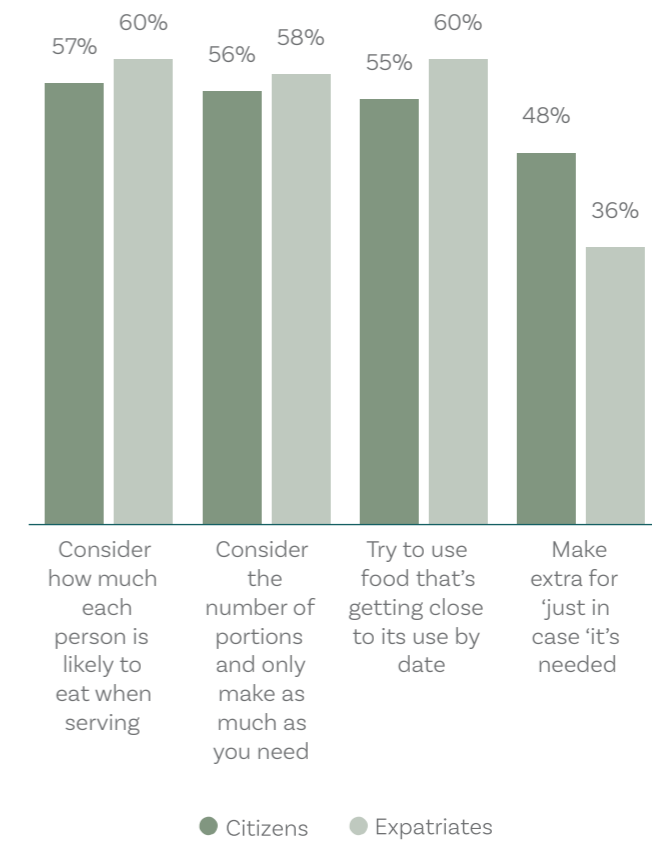
4.4. How does the UAE prepare food?

Residents say they take positive measures to prevent food waste when prepping.

Around 6 in 10 expatriates report using food near its 'use by' date, and a similar proportion carefully consider portion numbers and sizes before cooking. These rates are slightly higher than in Australia, where around 44% considered portion sizes.

There remains a large portion who still don't take these measures to prevent food waste. Nearly 1 in 2 (48%) citizens and 1 in 3 (36%) expatriates admit to cooking extra food 'just in case.' This compares to 24% in Australia. Most felt planning before serving is an impactful strategy to cut food waste. For example, 43% of expatriates and 39% of citizens said 'considering each person's likely food consumption before serving' as one of their top 3 ways to reduce food waste.

Q: When preparing a meal, how often do you or your household...? ⁽¹⁶⁾



Graph 3.7. - Food Preparation Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates

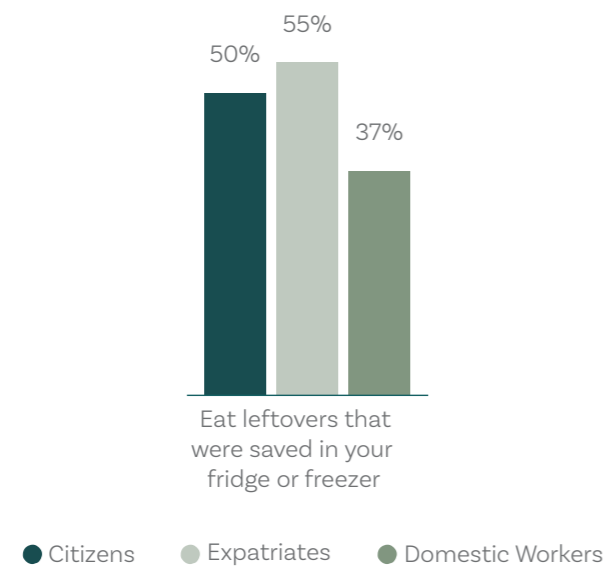
(16) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

4.5. How does the UAE use leftovers?

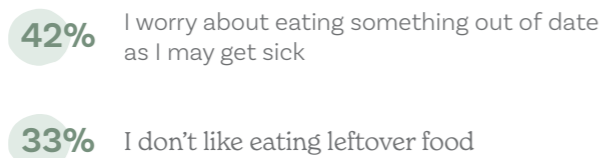
Residents say that they eat leftovers, similar to other countries.

About half of citizens (50%) and expats (55%) say they frequently eat leftovers from the fridge or freezer. This is comparable to Australia, where 47% report making use of their leftovers. In our survey, of those who don't eat their leftovers, 4 in 10 (42%) say they are concerned about eating food close to expiry, and 3 in 10 (33%) say they don't like eating leftovers. This suggests norms about food safety and residents' negative perception of leftovers may contribute to the national food waste issue.

Q: When preparing a meal, how often do you or your household...? ⁽¹⁷⁾



Those who do not eat leftovers said... (n = 238)



Graph 3.8. - Food Donation Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates, 273 Domestic Workers

(17) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

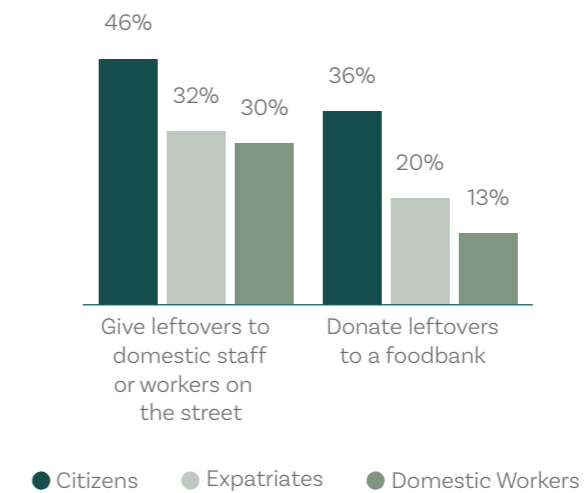
4.6. How does the UAE donate food?

Citizens say they frequently donate food, and others could follow their steps.

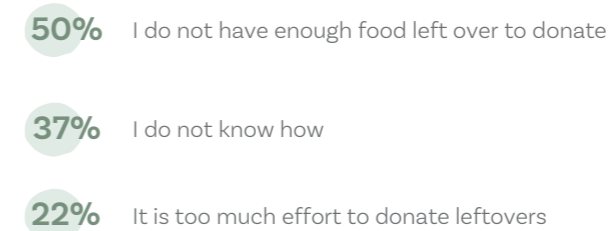
Across citizens, nearly 1 in 2 (46%) say they give leftovers to street workers, and 1 in 3 (36%) donate to food banks, compared to only 32% and 20% of expatriates reporting doing so.

To increase food donations, residents need easy tips and solutions. Among those who do not donate, 4 in 10 (37%) claim they do not know how, and 2 in 10 (22%) say it's too much effort to donate leftovers.

Q: When there are leftovers in your household, how often do you or your household...? ⁽¹⁸⁾



Those who do not donate to food banks said... (n = 1,929)



Graph 3.9. - Food Donation Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates, 273 Domestic Workers

(18) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

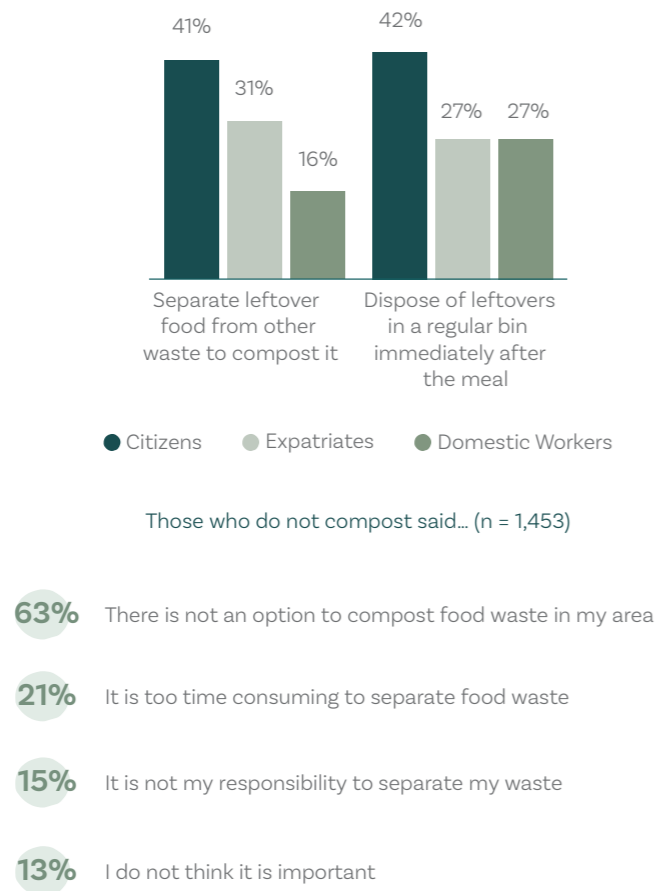
4.7. How does the UAE throw food away?

Many are willing to segregate and compost, but there is a need for more infrastructure.

A surprisingly high number of residents say they segregate their food waste for composting (41% citizens and 31% expatriates). Yet, less than 2 in 10 (16%) domestic workers report this, which is relevant given their higher relative responsibility for this stage of the food waste journey.

The main reason cited for not composting is the lack of opportunity, with more than 6 in 10 (63%) residents expressing this. Therefore, it is crucial to develop the necessary infrastructure for easy composting.

Q: When there are leftovers in your household, how often do you or your household...?⁽¹⁹⁾



Graph 3.10. - Food Discard Behaviors: All or Most of the Time

1,458 Citizens 4,055 Expatriates, 273 Domestic Workers

(19) Answer choices consisted of All the time / Most the time / About half the time / Sometimes / Rarely or Never / Don't know. Data shown is 'All the time' and 'Most the time' combined

4.8. How can we support domestic workers to reduce food waste?

To best support domestic workers in reducing household food waste, it could be helpful to focus on the stages of the process for which they bear more responsibility: storing, preparing, and disposing.

When it comes to storing, domestic workers may need more support to improve their specific actions. 19% report finding it difficult to fit things in the fridge or freezer, and 22% can't see the contents. Two in five report positive behaviors, such as considering the best way to store food to keep it as fresh as possible (39%) or using storage tools (38%). These behaviors largely align with those of their employers.

When it comes to preparing, 62% don't regularly measure ingredients, and 67% don't consider how much each person is likely to eat when serving. Only 18% use food past the 'use by' or 'best before' dates.

When it comes to disposing of food, they tend to dispose of it promptly. In fact, 27% dispose of leftovers immediately after the meal. However, they are also quite likely to give it to other domestic staff or workers on the street.

4.9. How different residents eat.

The UAE is a diverse nation in many ways. It is home to over 200 nationalities, and there are large cultural differences across cities and Emirates.

We looked at all food waste behaviors across different Emirates and found no substantial differences.

When looking at different expatriate subgroups there were some interesting findings. Differences between citizens and expats are reported across the survey. But when looking at the different groups within expatriates there are some specific insights. When it comes to shopping habits, Arab expats were the least likely to report buying misshapen fruits or vegetables (15%, compared to 23% among Asians and 24% among Westerners). On the other hand, Arab expats were more inclined to purchase items in bulk (40%, as opposed to 30% among Asians and Westerners). Regarding storage behaviors, there was generally a high degree of similarity. Arab expats were more likely to utilize storage tools (61%, compared to 55% among others) and freeze food to extend its shelf life (60%, versus 50% among Asians). Arab expats displayed a greater aversion to using food beyond its 'use by' and 'best before' dates (19%), in contrast to Asians (45%) and Westerners (27%). Moreover, Arab expats exhibited a higher tendency to "prepare extra, just in case it's needed" (42%, as opposed to 34% among Asians).

We explored how different income groups behave and found that all report similar trends. However, as we might expect, people with lower incomes tend to be smarter shoppers.

For example, a higher percentage of them stick to a specific budget when shopping. They are also more likely to take advantage of special offers when buying groceries (60%, as opposed to 53% for higher incomes).

4.10. How do different homes manage food?

People living in apartments are more likely to plan their food shopping on a budget (63%) compared to those in villas (55%). People in villas tend to buy food without a clear plan more often (28% for villas, 31% specifically for villas in gated communities, and 22% for apartments). Villas also tend to buy larger quantities of food (42% compared to 35% for apartments).

People in apartments sometimes struggle to find food in their fridge or freezer (26% in apartments, 32-34% in villas), but they are better at thinking about how to store food well (64% in apartments, 58% in villas) and using storage tools (59% in apartments, 53% in villas). This suggests that people in apartments want to do the right thing but may have limited space.

On the other hand, people in villas are more likely to make extra food, just in case they need it (43% in houses, 36% in apartments). People in apartments are more careful about serving the right amount of food.

Section 05

A Menu for Action

Who should lead efforts to reduce food waste, what does the nation think should be done, and how do we communicate this to the nation?

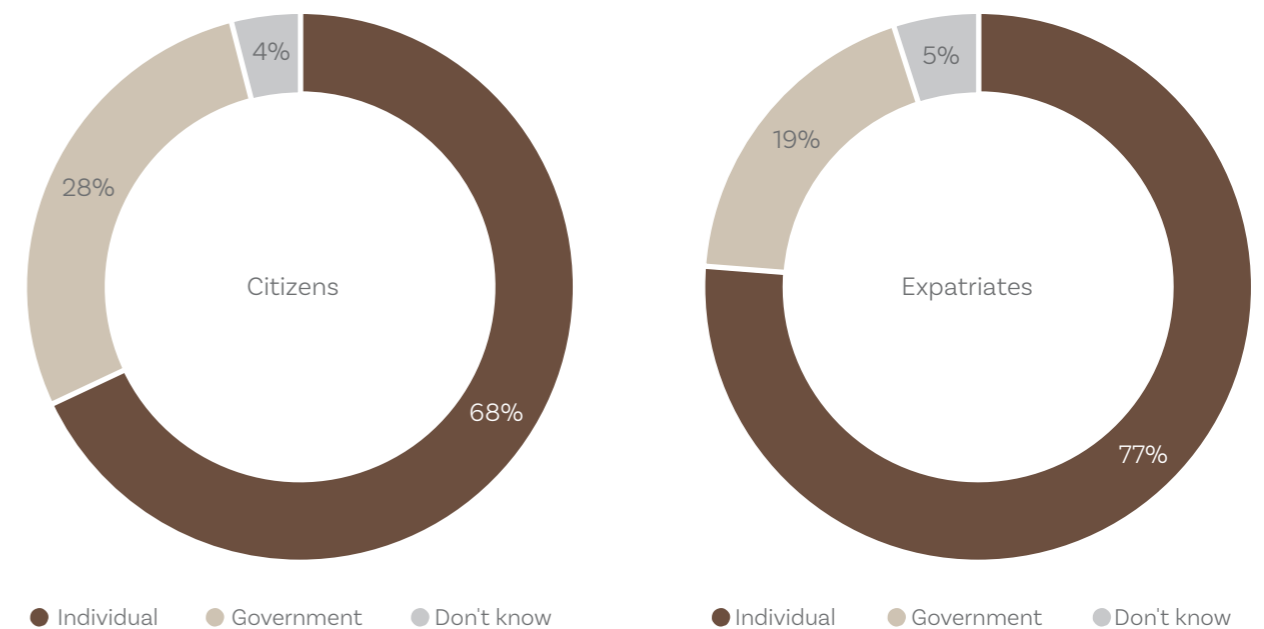


5.1. Who should lead efforts to reduce food waste?

Individuals are seen as primarily responsible for reducing food waste rather than governments.

7 in 10 (68%) citizens and 8 in 10 expatriates (77%) felt that individuals should be primarily responsible for reducing food waste in the UAE, rather than the government. This was consistent across income and regional groups, as well as for domestic workers and chefs.

Q: Who do you think is primarily responsible for reducing food waste in UAE?⁽²⁰⁾



Graph 4.1. - Individual vs Government Food Waste Responsibility

1,458 Citizens, 4,055 Expatriates

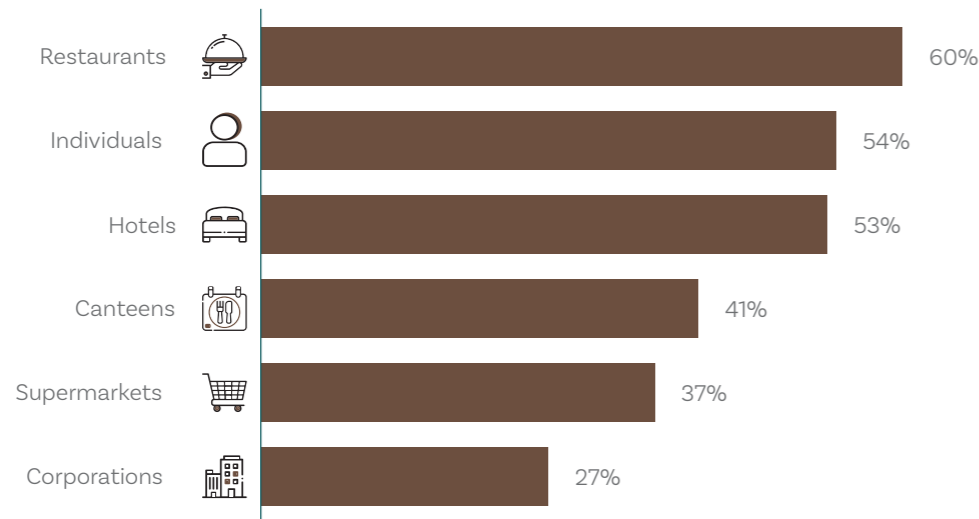
(20) Answer choices consisted of Government / Individuals / Don't know

Who should lead efforts to reduce food waste?

The hospitality sector should bear more responsibility for reducing food waste.

When given a longer list of options, both citizens and expatriates felt that the hospitality sector - restaurants, hotels, and canteens - should hold the most responsibility for food waste. Any interventions targeted at these stakeholders would likely retain high public support.

Q: To what extent do you think the following are responsible for food waste in the UAE? (21)



Graph 4.2. - Sector Responsibility for Food Waste

5,513 UAE Residents

(21) Answer choices consisted of Not at all / A little / Moderately / Very much. Data shown is 'Moderately' and 'Very Much' combined

5.2. What does the nation think should be done to cut food waste?

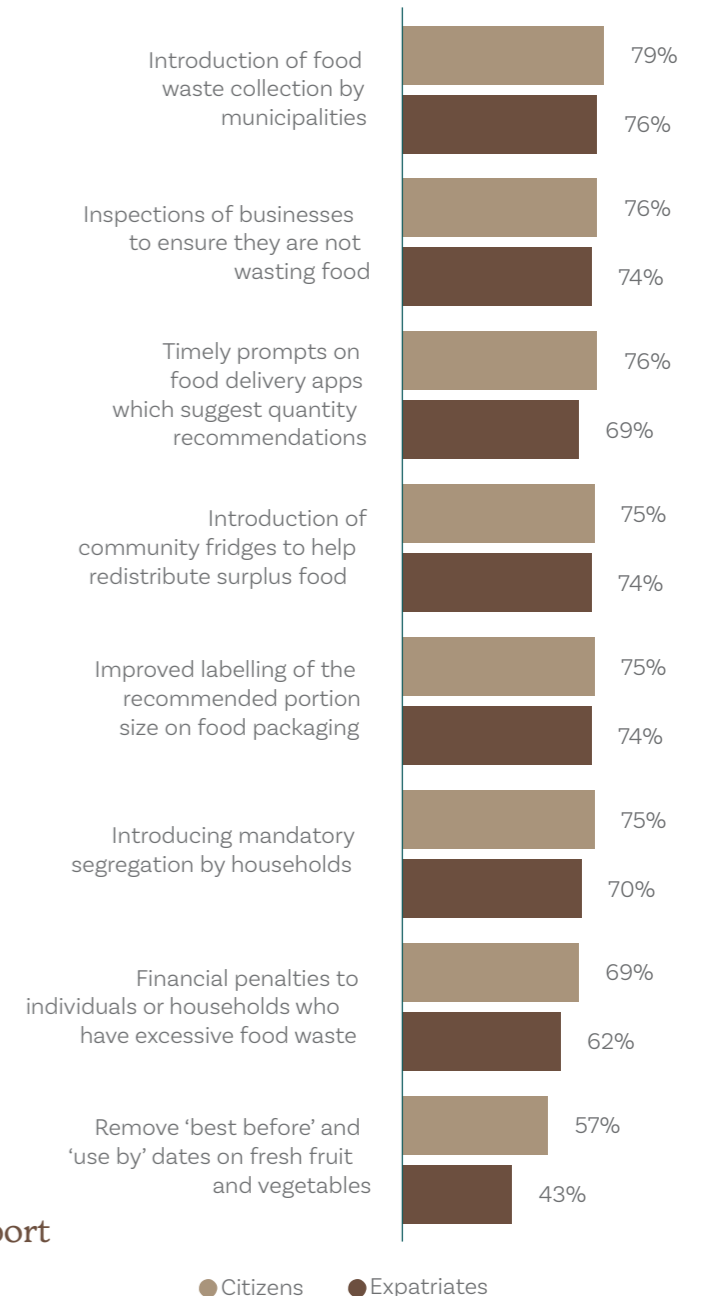
Support is high across a range of policy areas to reduce food waste.

Across these, the most popular was the introduction of food waste collection by municipalities (77%) and inspections of businesses (75%).

This is consistent with the fact that 65% of residents say the main barrier to composting is not having a municipally provided option in their area. Yet, support was also high across stronger measures like mandates, inspections, and fines.

There was less support for the removal of 'best before' and 'use by' dates from fruits and vegetables. This is not surprising, given respondents are concerned about eating produce past their 'best before' or 'use by' date and felt the labels would be less impactful than other actions. However, it is important to note that many don't fully understand this information when we test their knowledge.

Q: To what extent would you support or oppose the introduction of the following policies to help reduce food waste? (22)



Graph 4.3. - Support for New Policies: Support

1,458 Citizens 4,055 Expatriates

(22) Answer choices consisted of Strongly oppose / Oppose / Neither support nor oppose / Support / Strongly support. 'Support' represents those answering 'Strongly support' or 'Support'

5.3. Behavioral insights on how we should speak to the nation about food waste.

Messaging campaigns should highlight the UAE's national mission.

"Food Loss and Waste is a global problem.

The UAE has committed to reduce its food waste by 50% by 2030, led by ne'ma - the National Food Loss and Waste Initiative.

ne'ma has an ambition to create new norms.

Change starts with you."

Messages can create strong social norms that people should be reducing their food waste. When tested against messages emphasizing traditional values or putting a monetary value on food waste, a national mission message performed best at increasing intentions and perceptions around food waste.

Behavioral science uses social norms to trigger change. This is the idea that peers strongly influence our behavior, and we follow the positive behaviors of others. The national mission message performing better than other options suggests the UAE is motivated to reduce food waste by knowing that this is a shared societal norm.

We recommend highlighting the collective national mission and avoiding messages that suggest others are not doing their part, as this may foster negative social norms.

Instead, when designing messages to target specific behaviors, we recommend using these findings to highlight how many in the UAE are already engaging in these behaviors. For example, 60% of people in the UAE make a shopping list.

Section 06

Conclusion



Conclusion

There is an appetite to reduce food waste. Interestingly, awareness of the problem and motivation to change do not seem to be the key issues. There are high levels of support for the national mission to reduce food waste, and a good understanding of its environmental impact.

However, even if people are committed to the problem, food waste is a behavioral issue because it is not down to a single choice, but many small choices every day. It can be linked to stimuli from our purchasing or social environment, to a failure to plan properly during a busy day. To help households reduce their food waste, we have proposed a menu for action.

Methodology

We conducted a nationwide survey of 6,083 UAE residents during June and July 2023. We collected online data from 4,037 respondents, complemented by data collected in person from 2,046 to reach sub-groups such as high-income individuals, chefs, and domestic workers. In this key findings report, high-income citizens and high-income expatriates are combined within their wider sub-groups, while chefs and domestic workers remain a separate sample solely interviewed in person.

We weighted the citizen and expatriate responses to ensure that the survey provides an accurate picture of the nation. This means we used statistical methods to ensure that the voice of each respondent is proportionate to the actual composition of the UAE's population.

The table below shows how the sample was calibrated to be representative:

Targeted food waste groups	
Domestic workers	273
Chefs	220

Survey Sample

		Citizens (n = 1,458)		Expatriates (n = 1,458)	
		Proportion	Proportion after weighting	Proportion	Proportion after weighting
Gender	Male	46%	50%	63%	65%
	Female	54%	50%	37%	35%
Age	18-24	18%	20%	10%	10%
	25-34	36%	30%	39%	35%
	35-49	30%	35%	44%	45%
	50+	16%	15%	7%	10%
Emirate	Abu Dhabi	26%	45%	31%	30%
	Dubai	34%	25%	40%	40%
	Sharjah	21%	15%	16%	15%
	Northern Emirates	19%	14%	14%	15%
Nationality	Arab Expat	-	-	30%	38%
	Asian Expat	-	-	51%	42%
	Western Expat	-	-	10%	15%
	Other Expat (mainly African)	-	-	9%	5%
Monthly Income	AED 15,000 or below	5%	2%	37%	30%
	AED 15,000 to AED 30,000	21%	24%	32%	50%
	More than AED 30,000	68%	74%	29%	19%

Limitations

There are some limitations to this data. In particular, we recruited the sample using both an online survey and in-person data collection to reach specific subgroups. We also note limitations may come from the sample weighting, and the fact that people may not report accurately on their negative behaviors (social desirability bias).

Collecting data with different methods was an essential step in ensuring we represented voices across the nation. However, there may be consistent differences in subgroup responses due to the fact that they were collected through the online survey in person. In cases where there were large discrepancies, we approached our interpretation differently to mitigate this. The first strategy is to compare relative differences in reported behaviors within subgroups. For example, since domestic workers were mainly interviewed in person, we advise looking at how their responses compare across specific behaviors, rather than benchmarking them to citizens. We also folded many in-person responses into the wider subgroups. For example, since high-income expatriates were surveyed both online and in person, we combined these samples looked at the numbers for the whole expatriate population.

In our online experiment, we balanced the number of message variations we could test with the sample size of our study. We opted to test the effect of imagery with the 'social norms and messenger' framing, but we note that the economic and the values framings each included unique imagery, and we cannot directly interpret differences to be solely related to these messages. For example, it's possible that the imagery on the economic framing reduced its effectiveness at increasing intentions to make changes in the future.

When conducting a survey, just because people say they do or would do something in a survey, this doesn't mean they always will in real life. Due to this likely social desirability bias in responses, we stress the importance of focusing on relative differences within questions. For example, which food waste behaviors are most frequently reported compared to other behaviors, rather than the absolute values of these responses.

Abbreviation

BSG - Behavioral Science Group

FLW - Food Loss and Waste

KPIs - Key Performance Indicators

UAE - United Arab Emirates

UNEP - United Nations Environment Programme

UNSDG - United Nation's Sustainable Development Goal

