

Food waste in Australia

And how supermarkets profit from it

Australia wastes 7.6m tonnes of food each year, costing households \$19.3 billion. Based on industry average profit margins, food retailers make \$1.2 billion profit from this waste. This gives the major supermarkets a strong incentive to resist policy changes that would reduce food waste, such as reform of best-before labels. Public support is strong for all policies to reduce food waste.

Discussion paper

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Summary

Australia wastes a lot of food. A report commissioned by the Federal Government estimates that the country wasted 7.6 million tonnes of food in 2018-19, equivalent to 152 Sydney Harbour Bridges.

Despite this apparent abundance of food, charities estimate that 2 million Australian households have “run out of food in the last year due to limited finances”. Ironically, the wasting and re-purchasing of food contributes to the rising cost of living, further exacerbating these financial pressures.

The cost of wasted food is significant. According to the Federal Government’s report, household food waste represents an estimated economic loss of \$19.3 billion, a cost to the average household of between \$2,000 and \$2,500 per year.

If households waste \$19.3 billion worth of food each year, based on average industry profit margins, this represents \$1.2 billion in profit to food retailers. Australia’s food retailers, dominated by Coles and Woolworths supermarkets, have a strong incentive to delay action that would reduce food waste and related profit.

One step that could be taken to reduce food waste is reforms to use-by and best-before labelling. International research suggests that between 10% and 63% of food waste is related to labelling. Australia’s *National Food Waste Strategy Feasibility Study* recommended various changes to use by and best before labels in 2021, but Woolworths maintains that “discussions regarding [labelling reform] are still in their infancy” and will not commit to changing its labelling practices.

Around 10% of food waste is related to the cosmetic standards that retailers impose on fruit and vegetable growers. Farmers insist that perfectly edible food is rejected by supermarkets due to appearance alone, with the costs of this waste borne by producers rather than supermarkets. Such is the market power of Australia’s supermarkets that farmers often do not speak out against unfair treatment for fear of repercussions.

Opinion polling for this report shows that a clear majority of Australians support various regulatory reforms to reduce food waste—including, notably, overwhelming support (78%) for reforming use-by and best-before date labelling and 72% support for relaxed cosmetic standards. While there is clear support for regulatory changes, 81% of respondents also see reducing food waste as at least partly the responsibility of individual consumers.

This emphasis on individual responsibility will sound familiar to observers of many policy debates: the way in which the responsibility for addressing systemic problems is either allowed to fall on, or actively re-routed onto, individuals and their actions, rather than on the implementation of systemic change by governments and industry. This will need to change if Australia's food waste targets are to be met.

Introduction

Australians wasted 7.6 million tonnes of food in 2018-19, or 312 kg per person, according to the Australian Government's *National Food Waste Strategy Feasibility Study*.¹

To put this volume in context, the largest ships that dock in Australian ports can carry around 150,000 tonnes.² Australia's food waste would fill one of these ships every week. Another way of visualising this weight – the Sydney Harbour Bridge weighs just over 50,000 tonnes. Australia's food waste in 2018-19 was equivalent to 152 Sydney Harbour Bridges.³

Despite this abundance of food, in 2022, food charity Foodbank estimated that 2 million Australian households had “run out of food in the last year due to limited finances”.⁴ This equates to half a million households experiencing food scarcity every day.⁵ The organisation cited rising costs of living as the most common reason for food poverty.⁶

Ironically, the wasting and re-purchasing of food contributes to the rising cost of living. The *National Food Waste Strategy Feasibility Study* estimates the value of wasted food at \$19.3 billion worth of food in 2018-19, an average per household of between \$2,000 and \$2,500 per year.⁷ This is significantly more than Australians donate to charities each year - \$13.4 billion in 2021.⁸

¹ Note this volume figure includes primary production, processing, wholesale, retail, households and hospitality. Food Innovation Australia Limited (FIAL) (2021) *National Food Waste Strategy Feasibility Study*, p. 18, <https://www.fial.com.au/sharing-knowledge/food-waste>.

² Newer container ships take over 120,000 dead weight tonnes (DWT), while bulk carrier ships (carrying coal, oil, iron ore, grain, etc) visiting Australian ports can carry over 200,000 DWT. See Port of Melbourne (2020) *2050 Port Development Strategy* <https://www.portofmelbourne.com/facilities-development/port-development-strategy/>; Maritime Page (2023) *Newcastlemax Bulk Carrier: A Closer Look*, <https://maritimepage.com/newcastlemax-bulk-carrier-a-closer-look/>

³ Transport for NSW (2014) *Bridge Facts*, <https://roads-waterways.transport.nsw.gov.au/documents/projects/sydney-inner/sydney-harbour-bridge/bridge-facts.pdf>

⁴ Foodbank (2022) *Hunger in Australia*, <https://www.foodbank.org.au/hunger-in-australia/?state=nsw-act>

⁵ Foodbank (2022) *Hunger in Australia: The Facts*, <https://www.foodbank.org.au/hunger-in-australia/the-facts/?state=nsw-act>

⁶ Ibid

⁷ FIAL (2021) *National food waste strategy feasibility study*, <https://www.agriculture.gov.au/sites/default/files/documents/national-food-waste-strategy.pdf>

⁸ Australian Charities and Not-For-Profits Commission (2023) *Australian Charities Report – 9th Edition*, <https://www.acnc.gov.au/tools/reports/australian-charities-report-9th-edition>

As if further reasons were necessary to act on food waste, it is also a significant source of greenhouse gas emissions, some 17.5 million tonnes of CO₂-e in 2018-19, equivalent to the emissions of a major coal-fired power station.⁹

Food waste seems to be getting worse, not better. In 2005, The Australia Institute made the first known estimate of the value of food waste in Australia, finding that "Australians threw away \$2.9 billion of fresh food, \$630 million of uneaten take-away food, \$876 million of leftovers, \$596 million of unfinished drinks and \$241 million of frozen food, a total of \$5.3 billion on all forms of food in 2004."¹⁰ Another Australia Institute study in 2009 found similar results:

Australians are throwing away food worth \$5.2 billion a year, enough money to meet the financial shortfall in the United Nations Emergency Relief Fund. It is also more than it costs to run the Australian Army every year (\$4.8 billion). In household terms, the amount spent on food that is subsequently thrown away is more than the \$5 billion Australians spent in 2007 on digital equipment from flat screen TVs to ink jet printers.¹¹

Australia is not alone. In 2011, the UN's Food and Agriculture Organization released *Global Food Losses and Food Waste*, a detailed investigation of the extent of worldwide food waste. The report concluded that "roughly one-third of food produced for human consumption is lost or wasted globally".¹² Four years later, the UN made addressing food waste part of the Sustainable Development Goals; Target 12.3 calls for "halving per capita global food waste at the retail and consumer levels" by 2030.¹³

Australia's plan for implementation of this goal came in 2017 in the form of the Turnbull government's *National Food Waste Strategy* ("the 2017 Strategy"), which referred explicitly to "contributing toward global action on reducing food waste by aligning with Sustainable Development Goal 12".¹⁴ The current Environment Minister

⁹ FIAL (2021) *National Food Waste Strategy Feasibility Study*, p. 18, <https://www.fial.com.au/sharing-knowledge/food-waste>

¹⁰ Hamilton, Denniss and Baker (2005) *Wasteful Consumption in Australia* <https://australiainstitute.org.au/report/wasteful-consumption-in-australia/>

¹¹ Baker, Fear and Denniss (2009) *What a waste: An analysis of household expenditure on food*, <https://australiainstitute.org.au/report/what-a-waste-an-analysis-of-household-expenditure-on-food/>

¹² Gustavsson et al (2011) *Global Food Losses and Food Waste*, UN Food and Agricultural Organisation, p. v, <https://www.fao.org/3/mb060e/mb060e.pdf>

¹³ UN FAO (2015) *Sustainable Development Goal 12: Responsible consumption and production*, <https://www.fao.org/3/cc1403en/online/cc1403en.html#/12>

¹⁴ Australian Government (2017) *National Food Waste Strategy: Halving Australia's food waste by 2030*, p. 3, <https://www.agriculture.gov.au/sites/default/files/documents/national-food-waste-strategy.pdf>

Tanya Plibersek recently reaffirmed her commitment to this goal, promising that the government would be “delivering a circular economy in Australia”.¹⁵

As part of the plan for meeting the 2030 goal, the 2017 Strategy promised funding for “an independent organisation [to] develop an implementation plan and a monitoring and evaluation framework for the strategy, and [to] coordinate priority areas of work.”¹⁶ The organisation selected for this role was not-for-profit Food Innovation Australia Ltd, which delivered its strategy document in 2020: *A Roadmap for Reducing Australia’s Food Waste by Half by 2030* (“the Roadmap”). This was supplemented by the *National Food Waste Strategy Feasibility Study* (“the Feasibility Study”), published in 2021.

The Feasibility Study makes a range of recommendations in order to meet the 2030 goal, relating to households, governments, manufacturers, retailers, etc. The Feasibility Study authors emphasise that “without the full recommended scenario being implemented at the scale and pace described, Australia will not be able to deliver [on] its commitments on food loss and waste.”¹⁷

This report explores reasons why some of these recommendations may not be being achieved. A key factor appears that retailers have little incentive to reduce waste, for the simple reason that doing so would cost them money.

¹⁵ Plibersek (2023) *Joint Media Release: Reusing Western Australia’s food waste for improved farming*, <https://www.tanyaplibersek.com/media/media-releases/joint-media-release-reusing-western-australia-s-food-waste-for-improved-farming/>

¹⁶ Australian Government (2017), op. cit.

¹⁷ Ibid., p. 43

Food waste and retailer profit

The more food consumers buy, the more profit food retailers make. Whether the food is consumed or wasted is of no concern to the supermarkets. As such, any policies to reduce the amount of food purchased will inevitably lead to a reduction in the profits made by food retailers.

From a financial perspective, it is easy to see why food retailers are only too happy for consumers to waste food. Indeed, it is in the interests of food retailers to create regulatory and cultural norms that encourage food waste.

QUANTIFYING RETAIL PROFITS FROM FOOD WASTE

According to the Federal Government's Feasibility Study, an estimated \$19.3 billion worth of food is wasted each year at the household level.¹⁸

The ABS publication *Australian Industry*¹⁹ allows for the identification of the food retailing industry's average annual rate of profit.²⁰ The data shows that in the financial year 2021–22 (the latest financial year for which figures are available), the industry's earnings before interest, tax, depreciation, and amortization (EBITDA)²¹ was \$9.9 billion. This profit was made on sales and service income of \$161.3 billion. This puts the average rate of profit for the food retailing industry at 6.1%.²² If the average rate of profit across the industry is 6.1%, and we assume that the \$19.3 billion worth of food wasted by households returned this average profit, then the profit earned on the wasted food was \$1.2 billion.²³ (These figures are shown in Table 1 below.)

¹⁸ Food Innovation Australia Limited (2021) National Food Waste Strategy Feasibility Study, page 18, <https://www.fial.com.au/sharing-knowledge/food-waste>

¹⁹ Australian Bureau of Statistics (2023) *Australian Industry*, 26 May, <https://www.abs.gov.au/statistics/industry/industry-overview/australian-industry/latest-release>

²⁰ For these purposes, "food retailing" includes convenience store operations; grocery retailing; grocery supermarket operations; retail butcher's shops; fresh meat, fish, and poultry retailing; fruit and vegetable retailing; liquor retailing; and other specialised food retailing.

²¹ EBITDA measures profitability before factors over which businesses have some discretion, such as capital structure, financing, depreciation methods, etc. As such, it provides the clearest measure of the profit made by an industry (or a single company).

²² This is calculated as EBITDA/sales, i.e. \$9.9 billion/\$161.3 billion.

²³ This is calculated as 6.1% of \$19.3 billion.

Table 1: Calculation of profit on food waste

Food retailing sales and service income (\$m)	\$161,278
Food retailing EBITDA (\$m)	\$9,895
Food retailing average rate of profit (%)	6.135%
Cost of household food waste (\$m)	\$19,294
Profit earned on food waste (\$m)	\$1,184

Sources: see text above and footnotes

It is important to note that this \$1.2 billion represents the profit earned by food retailers alone from food waste. It does not include income and expenses by other upstream industries such as growers and food processors when they produce food that is never eaten.

Clearly, not all this \$1.2 billion can be avoided—some food is thrown away because it has genuinely gone bad. Nevertheless, this provides a powerful disincentive for food retailers to take actions to reduce food waste.

Food retailing in Australia is one of the most highly concentrated retail sectors in the world. The two largest supermarket chains—Coles and Woolworths—account for at least 70% of packaged grocery sales and 50% of fresh produce sales, figures that remain largely unchanged over decades.^{24,25} This market share, along with the vertical business model used by both chains,²⁶ gives them immense power over the way food is produced, packaged, regulated and sold.

There are several prominent examples of how consumer food wastage and retailer behaviour are linked—and why supermarkets might be reluctant to hasten the introduction of regulations designed to reduce the food waste they profit from. Perhaps the two clearest examples are cosmetic standards and use-by and best-before labels.

²⁴ ACCC (2008) *Report of the ACCC Inquiry into the Competitiveness of Retail Prices for Standard Groceries*, p. xv, <https://www.accc.gov.au/system/files/Grocery%20inquiry%20report%20-%20July%202008.pdf>

²⁵ Statista (2023) *Market share of grocery retailers in Australia in financial year 2022*, <https://www.statista.com/statistics/994601/grocery-retailer-market-share-australia/>

²⁶ As per ACCC (2008), this is a model that involves the “undertaking by a single firm of successive stages in the process of production and supply of a particular good.”

COSMETIC STANDARDS

Australian retailers impose strict cosmetic standards on the appearance of fruit and vegetables that they sell. Produce that does not meet certain specifications for size, shape, weight and appearance are routinely rejected by supermarkets and end up being wasted.²⁷ An Australian study found that of all the produce discarded on a tomato farm, between 69-88% of produce was rejected due to product specifications.²⁸ In turn, the authors found that this post-harvest loss was attributed to the “deliberate and informed actions of supply chain actors, dictated predominantly by private food standards and market value”.²⁹ On average, around 10% of food is estimated to be lost through this channel.³⁰

One farmer recently told the ABC that “[supermarkets just knock [produce] back because it doesn’t meet the standards but there is nothing wrong with that fruit”.³¹ Another told researchers that quality standards meant his farm “probably threw away... 40 tonnes of fruit in one season”.³²

Farmers overwhelmingly bear the cost of high cosmetic standards, and the food wasted as a result of these standards is recorded as having been wasted prior to arriving at retail stores. A large portion of produce never leaves the farm because farmers fear the produce will be rejected, and it is cheaper to leave food to rot rather than pay for harvesting and transport only for it to be rejected by supermarkets “at the back door”.³³ Where farmers do send produce that does not meet specified conditions, they face potential repercussions from retailers and may be locked out of the supply chain altogether. In fact, an ACCC inquiry into retail conduct heard that farmers often do not speak out against major retailers for fear of repercussions.³⁴ Horticulture

²⁷ Parliament of NSW (2022) *Food Production and Supply in NSW*, p. 33, <https://www.parliament.nsw.gov.au/ladocs/inquiries/2841/Report%20-%20food%20production%20and%20supply%20in%20NSW.pdf>

²⁸ McKenzie et al (2017) *Quantifying Postharvest Loss and the Implication of Market-Based Decisions: A Case Study of Two Commercial Domestic Tomato Supply Chains in Queensland, Australia* 3, no. 3, Horticulturae, p. 44.

²⁹ McKenzie et al (2017) *Quantifying Postharvest Loss & the Implication of Market-Based Decisions*, p. 55

³⁰ Department of Agriculture and Fisheries, Brussels, (2017) *The impact of cosmetic quality standards on food losses in the Flemish fruit and vegetable sector*, p. 1, https://unece.org/DAM/trade/agr/FoodLossChallenge/2017_Study_Quality_standards_and_food_loss_Flanders_Belgium.pdf

³¹ ABC News (2023) *Calls for action as inquiry finds supermarkets’ cosmetic fruit and vegetable standards cause food waste*, <https://www.abc.net.au/news/2023-01-18/inquiry-supermarkets-cosmetic-standards-fruit-and-veg-food-waste/101866486>

³² Devin and Richards (2016) *Food Waste, Power, and Corporate Social Responsibility in the Australian Food Supply Chain*, *Journal of Business Ethics* 150, p, 205

³³ Ibid.

³⁴ ACCC (2008) *Report of the ACCC Inquiry into the Competitiveness of Retail Prices for Standard Groceries*, p. 326, <https://www.accc.gov.au/system/files/Grocery%20inquiry%20report%20-%20July%202008.pdf>

Australia went as far to say that 85% of growers were unwilling to raise issues “for fear of retribution”.³⁵ It is through this mechanism of market power that retailers push both the monetary and moral costs of food waste onto primary producers.

USE-BY AND BEST-BEFORE LABELS

At the other end of the supply chain, retailers profit from what is effectively the food industry’s equivalent of planned obsolescence: use-by and best-before labels. Both these labels are used on food products in Australia, and their meaning is set out in the *Australian and New Zealand Food Standards Code*. The former designates the time after which a product becomes unsafe to eat, and that therefore poses a health risk; the latter simply designates the loss of some level of quality from a product after a certain date.³⁶

The problem with this system is that many consumers do not understand the difference between the two—a recent survey by *Fight Food Waste Australia* found that only 51% of respondents were able to correctly identify what both dates indicate.³⁷ The result is that a lot of food that is still perfectly safe to eat gets wasted. While there is no data specific to Australia on how much food is thrown away due to misunderstanding of labelling, figures from comparable economies can provide some idea: up to 10% of food discarded in the European Union, for example, was linked to date marking.³⁸ The UN’s *Global Food Losses and Food Waste* report suggests that the EU and the “North America and Oceania” group into which it places Australia are roughly comparable in terms of the amount of food wasted per capita.³⁹

Labelling reform could eliminate this confusion, and in doing so, effectively extend the length of time that produce is kept before being discarded. Further EU-based research

³⁵ Horticulture Australia in ACCC (2008) *Report of the ACCC Inquiry into the Competitiveness of Retail Prices for Standard Groceries*, p. 326,

<https://www.accc.gov.au/system/files/Grocery%20inquiry%20report%20-%20July%202008.pdf>

³⁶ Food Standards Australia and New Zealand (2022) *Use-by and Best-before Dates*,

<https://www.foodstandards.gov.au/consumer/labelling/dates/Pages/default.aspx>

³⁷ Fight Food Waste Cooperative Research Centre (2019) *Food Waste Australian Household Attitudes and Behaviours*, p. 16, https://fightfoodwastecrc.com.au/wp-content/uploads/2019/11/Summary-Report_final.pdf

³⁸ European Union (2018) *Market Study on Date Marking and Other Information Provided on Food Labels and Food Waste Prevention*, p. iii, <https://op.europa.eu/en/publication-detail/-/publication/e7be006f-0d55-11e8-966a-01aa75ed71a1/language-en>

³⁹ Gustavsson et al, op. cit., p. 5

has indicated that adding just two additional days of shelf life to a perishable product could reduce household food waste by up to 63%.⁴⁰

The implication here is that reform to labelling could result in a significant reduction in the 7 million tonnes of food wasted each year and the \$1.2 billion profit discussed above. It is perhaps unsurprising that retailers have proven reticent to reform product labelling standards: Woolworths, for example, has insisted that “discussions in Australia are still in their infancy” and would not commit to labelling reform.⁴¹

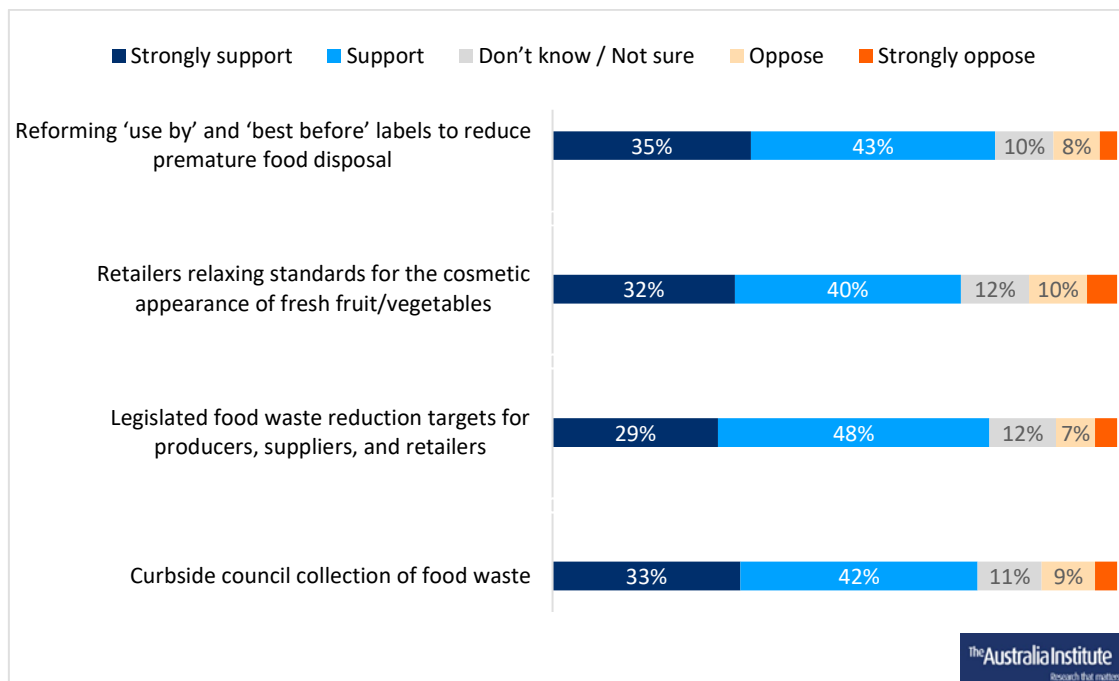
⁴⁰ European Institute of Innovation and Technology (2021) *Transitioning to a circular food economy: the solution for food waste and food loss?*, <https://www.eitfood.eu/blog/transitioning-to-a-circular-food-economy-the-solution-for-food-waste-and-food-loss?#references>

⁴¹ 7 News (2022) *How best before labels could be contributing to Australia's \$37 billion food waste crisis*, <https://7news.com.au/lifestyle/food/the-tiny-outdated-numbers-that-could-be-adding-hundreds-of-dollars-a-year-to-your-grocery-bill-c-8453935>

Consumer perceptions

Between 6 June and 9 June 2023, The Australia Institute surveyed a nationally representative sample of 1,002 adults living in Australia. The responses indicated that a clear majority of Australians support various regulatory reforms to reduce food waste—including, notably, overwhelming support (78%) for reforming use-by and best-before date labelling. (More polling details in Appendix)

Figure 1: Support for regulatory changes

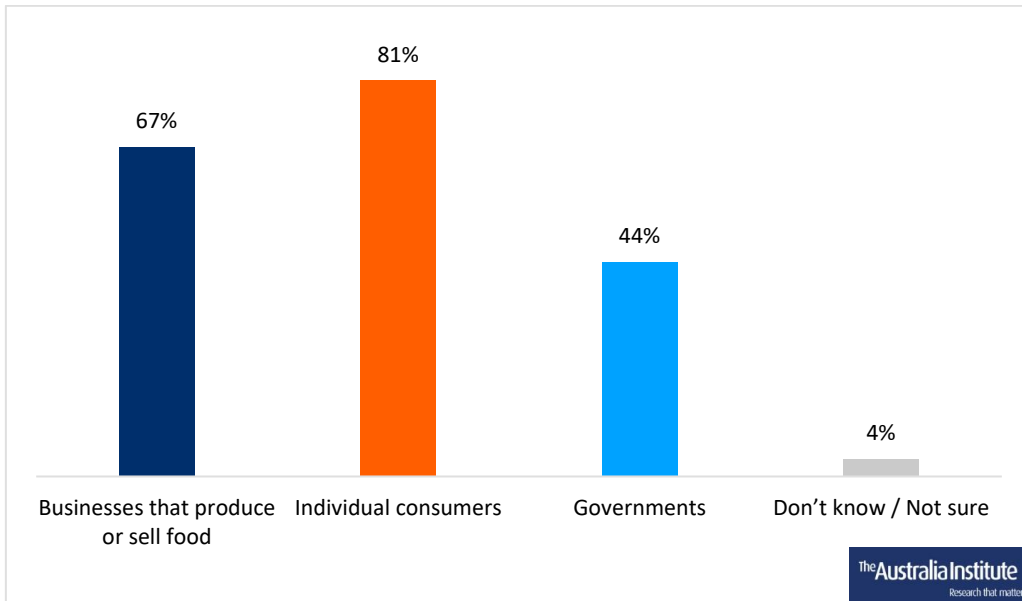


Source: Australia Institute polling

However, the results also showed that while 67% of Australians feel businesses that produce or sell food should be responsible for reducing food waste, and 44% think governments should be responsible. 81% of Australians also see responsibility for addressing food waste as falling on individual consumers.⁴²

⁴² Respondents were able to choose multiple options, so the total percentage exceeds 100%.

Figure 2: Responsibility for addressing food waste



Source: Australia Institute polling

It is understandable that people blame themselves for food waste; indeed, it is in the interest of businesses to keep the focus on the individual. This pattern occurs across many policy areas: responsibility for addressing systemic problems is either allowed to fall onto individuals, or actively re-routed towards them by business and government.

Progress on 2030 food waste goal

Despite public support for reducing food waste, the Australian Government appears to be lagging in its progress toward meeting its stated goal of halving food waste by 2030. This is perhaps no surprise, given the significant profits generated by food waste. *The National Waste Report 2022* reported that “Food waste generation from households and businesses remained approximately stable between 2016–17 and 2020–21 at about 180 to 190 kg per capita.”⁴³ It estimated an overall 3% increase in organic waste going to landfill (from 5.73Mt to 5.89Mt) over the period 2016-17 to 2020-21.

The 2021 *Feasibility Study* recommended 21 interventions that could halve food waste by 2030. Some appear to be progressing: the recommendation for a voluntary public-private partnership to collaborate on supply chain challenges has been set up as the Australian Food Pact, administered by Stop Food Waste Australia. While the major supermarkets and many major food processors have signed the Pact, it is unclear how effective the initiative has been. No data is published on the Pact website.⁴⁴

Another recommendation is for tax incentives to promote food donation and waste measurement technologies. This idea has been developed by the Fight Food Waste CRC and consultants KPMG.⁴⁵ It is being promoted by food rescue organisations and appears to have been referred to the Productivity Commission by the Federal Government.⁴⁶ However, no actual changes appear to have been made.

The implementation of recommendations has also been delayed. An initial plan to roll-out of food and garden organic waste bins, originally scheduled for 2023, was recently pushed back to 2030.⁴⁷

⁴³ Blue Environment on behalf of the Department of Climate Change, Energy, the Environment and Water (2022) *National Waste Report*, p. 50, <https://www.dcceew.gov.au/sites/default/files/documents/national-waste-report-2022.pdf>

⁴⁴ Stop Food Waste Australia (2023) *Australian Food Pact*, <https://www.stopfoodwaste.com.au/australian-food-pact/>

⁴⁵ KPMG (2020) *Food Waste Tax Incentive: food relief through Australia's tax system*, <https://kpmg.com/au/en/home/insights/2020/09/food-relief-australia-tax-system.html>

⁴⁶ Hollingworth and Berlage (2023) *War on food waste looks to tax incentives for farmers, businesses that donate surplus imperfect produce*, <https://www.abc.net.au/news/rural/2023-08-08/foodbank-tax-incentives-businesses-surplus-produce-donations/102688594>

⁴⁷ ABC News (2022) “Australian Food Organic Waste Target Abandoned by the Federal Government”, Australian Broadcasting Corporation, <https://www.abc.net.au/news/2022-12-01/food-waste-target-abandoned-by-federal-government-/101707458>

Many of the *Feasibility Study* recommendations have been the subject of research papers by the Fight Food Waste CRC, but it is unclear whether recommendations have been implemented in any significant way. For example, the recommendation to divert food waste to animal feed is one of the most effective interventions, potentially reducing food waste by over one million tonnes per year according to the *Feasibility Study*. The Fight Food Waste CRC has initiated research projects on food waste to pig feed,⁴⁸ and food waste to livestock feed production using insects,⁴⁹ but it is unclear to what extent the Feasibility Study recommendation has actually been implemented.

It is important to note that a lack of information and the generally low standard of data is a limitation of all waste research. *National Food Waste Reports* note that “data on the composition of waste to landfill, including the organics proportion, is poor”, and that their figures, which are constructed from audits of bins and landfill receipts “are not consistently collected and collated” and that “landfill audits are infrequent and not well standardised”.⁵⁰

It was perhaps for this reason that the 2017 Strategy called for the establishment of “a National Food Waste Baseline so that [Australia] can monitor and track progress towards [its] food waste reduction goal”.⁵¹ That baseline was provided by yet another report, this one produced by consultancy firm Arcadis, and published in 2019 under the title *National Food Waste Baseline*. It estimated Australia’s food waste during the financial year 2016–17 at “7.3m tonnes ... from across the entire supply and consumption chain”.⁵²

This is a significantly higher estimate than the estimate of 4.2m tonnes made by an RMIT report two years earlier,⁵³ and the Arcadis report came with extensive caveats about the available data:

⁴⁸ Fight Food Waste CRC (2023) *Food Waste to Pig Feed – Safe and Biosecure*, <https://fightfoodwastecrc.com.au/project/pigfeed/>

⁴⁹ Fight Food Waste CRC (2023) *Optimising and industrialising black soldier fly (BSF) production – redirecting food waste to livestock feed production using insects*, <https://fightfoodwastecrc.com.au/project/optimising-and-industrialising-black-soldier-fly-bsf-production-redirecting-food-waste-to-livestock-feed-production-using-insects/>

⁵⁰ Blue Environment on behalf of the Department of Climate Change, Energy, the Environment and Water (2022) *National Waste Report*, p. 15, <https://www.dcceew.gov.au/sites/default/files/documents/national-waste-report-2022.pdf>

⁵¹ Australian Government (2017), op. cit., p. 4

⁵² Arcadis (2019) *National Food Waste Baseline*, p. 13, <https://www.dcceew.gov.au/sites/default/files/env/pages/25e36a8c-3a9c-487c-a9cb-66ec15ba61d0/files/national-food-waste-baseline-final-assessment.pdf>

⁵³ Austin et al (2013), op. cit., p. 11

Food waste data globally is typically limited in quantity and quality, even among the countries that have undertaken the most work on definition and measurement. This is a significant challenge in Australia ... there are no formal data capture systems to collect comprehensive food waste generation information in any part of the Australian supply chain. Other than food rescue and moderate data in some jurisdictions on household waste behaviours, there is negligible publicly available data on food waste quantities, composition and destinations. These gaps occur in all sectors of the food supply and consumption chain.⁵⁴

More concerning, the Feasibility Study's interim target, which calls for an 11% reduction in food waste by 2025, is looming—and it remains unclear exactly how much progress Australia has made toward meeting that goal. A policy brief prepared by OzHarvest and the Monash Sustainable Development Institute in 2021 notes that “progress against the baseline has not yet been measured”; such a measurement was “recommended to be conducted in 2022”,⁵⁵ but as yet, no results have been published. The only real measure of progress over time is contained in the Feasibility Study itself, which put the level of wastage at 7.6m tonnes in 2018–19:⁵⁶ an increase of 0.3m tonnes over the baseline.⁵⁷

⁵⁴ Arcadis (2019), op. cit

⁵⁵ OzHarvest and MSDI (2021), *Halving Food Waste: Australia's progress on SDG 12.3*, p. 4, <https://www.ozharvest.org/app/uploads/2021/07/Halving-Food-Waste-Joint-policy-brief-between-MSDI-and-OzHarvest-on-SDG-12.3.pdf>

⁵⁶ FIAL (2021), op. cit., p. 18

⁵⁷ See Blue Environment (2022) *National Waste Report*, p. 122, <https://www.dcceew.gov.au/sites/default/files/documents/national-waste-report-2022.pdf>

Conclusion

Australians want to reduce food waste. Doing so would save money, help reduce inflation and reduce greenhouse gas emissions. Governments have committed to ambitious food waste reduction targets. Yet progress is stalling.

Addressing food waste will require getting around a large obstacle in the form of Australia's big food retailers, who benefit financially from some forms of food waste, and are also able to displace the costs of that waste onto farmers and/or producers. Our research estimates that food retailers make \$1.2 billion in profit from selling food that is ultimately wasted. As Clive Hamilton and Richard Denniss wrote in 2005, waste "is crucial to the health of the economic system, which is why many business groups are implacably opposed to measures designed to tackle waste".⁵⁸ It seems that these incentives remain today.

Whatever the cause, progress toward the 2030 goal of halving food waste in Australia appears to be stalling.

⁵⁸ Hamilton and Denniss, *Affluenza*, (Allen and Unwin: Victoria, 2005) pp. 102-103

Appendix: Polling

Method

Between 6 June and 9 June 2023, The Australia Institute surveyed 1,002 adults living in Australia, online through Dynata's panel, with nationally representative samples by gender, age group and state/territory.

Voting crosstabs show voting intentions for the House of Representatives. Those who were undecided were asked which way they were leaning; these leanings are included in voting intention crosstabs.

The research is compliant with the Australian Polling Council Quality Mark standards. The long methodology disclosure statement follows.

Long disclosure statement

The results were weighted by three variables (gender, age group, and state or territory) based on Australian Bureau of Statistics "National, state and territory population" data, using the raking method. Those who answered the gender identity question as "Non-binary", "I use a different term", or "Prefer not to answer" had their responses included with females for the purpose of reporting, due to constraints from weighting data availability. This resulted in an effective sample size of 943.

The margin of error (95% confidence level) for the national results is $\pm 3\%$.

Results are shown only for larger states.

Voting intention questions appeared just after the initial demographic questions, before policy questions. Respondents who answered "Don't know / Not sure" for voting intention were then asked a leaning question; these leanings are included in voting intention crosstabs. "Coalition" includes separate responses for Liberal and National. "Other" refers to Independent/Other, and minor parties in cases where they were included in the voting intention but represent too small a sample to be reported separately in the crosstabs.



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Detailed results

No preceding questions in the poll are expected to have influenced the results of the questions published here.

Food waste is any component of food, inedible or still edible, that is not consumed. It includes food that goes into compost.

How concerned are you about food waste?

	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>18-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60+</i>
Very Concerned	35%	31%	38%	32%	34%	38%	28%	39%
Fairly Concerned	44%	42%	45%	53%	45%	38%	43%	41%
Not Very Concerned	16%	21%	11%	13%	17%	18%	18%	15%
Not at All Concerned	3%	3%	3%	2%	1%	4%	7%	3%
Don't know/ Not sure	3%	2%	3%	0%	4%	2%	5%	3%

Who should be responsible for reducing food waste?

	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>18-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60+</i>
Businesses	67%	64%	70%	63%	73%	71%	65%	67%
Individual Consumers	81%	80%	82%	71%	82%	84%	86%	84%
Governments	44%	40%	47%	49%	52%	49%	38%	35%
Don't know/ Not sure	4%	3%	5%	2%	4%	7%	3%	3%

Do you support or oppose the following initiatives?

Curbside Council collection of food waste.

	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>18-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60+</i>
Strongly Support	33%	33%	34%	33%	36%	39%	29%	31%
Support	42%	41%	43%	45%	41%	42%	40%	42%
Oppose	9%	11%	8%	11%	10%	8%	7%	10%
Strongly Oppose	4%	5%	3%	4%	2%	2%	7%	4%
Don't know/ Not sure	11%	11%	12%	7%	10%	9%	17%	13%

Do you support or oppose the following initiatives?

Legislated food waste reduction targets for producers, suppliers, and retailers.

	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>18-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60+</i>
Strongly Support	29%	25%	34%	29%	29%	31%	27%	30%
Support	48%	49%	47%	54%	49%	50%	46%	43%
Oppose	7%	9%	6%	7%	9%	5%	6%	7%
Strongly Oppose	4%	6%	2%	4%	2%	4%	6%	4%
Don't know/ Not sure	12%	12%	12%	5%	11%	11%	16%	16%

Do you support or oppose the following initiatives?

Retailers relaxing standards for the cosmetic appearance of fresh fruit and vegetables.

	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>18-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60+</i>
Strongly Support	32%	31%	33%	33%	36%	30%	34%	30%
Support	40%	42%	38%	43%	42%	44%	34%	38%
Oppose	10%	12%	8%	12%	8%	10%	9%	12%
Strongly Oppose	5%	4%	7%	5%	4%	5%	5%	7%
Don't know/ Not sure	12%	10%	14%	8%	10%	10%	18%	14%

Do you support or oppose the following initiatives?

Reforming 'use by' and 'best before' labels to reduce premature food disposal.

	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>18-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60+</i>
Strongly Support	35%	32%	38%	38%	33%	31%	34%	38%
Support	43%	46%	41%	42%	42%	46%	40%	45%
Oppose	8%	9%	7%	8%	14%	9%	7%	5%
Strongly Oppose	3%	3%	3%	4%	2%	5%	3%	2%
Don't know/ Not sure	10%	10%	11%	8%	10%	9%	17%	9%