

The Food Waste Crisis

When you think of Australia, you probably think about giant spiders, kangaroos, the beautiful beaches, and mystery of the outback. But there's more to this story. On a per capita basis, they have the highest amount of food wasted globally at a whopping 312 kg annually per person (FIAL). Yet more than three million Australians are battling food insecurity (Foodbank). This is also a global concern; around 1.3 billion tons of food is wasted every year (FAO). That's enough to feed three billion people. So much food waste also has environmental detriments. As food gets sent to landfills and decomposes without oxygen, it releases a greenhouse gas known as methane. Methane traps heat in the atmosphere, causing global warming to speed up. Fifty five million metric tons of methane globally is released from food waste in landfills (Krause et al). The food waste crisis will only progress the longer we wait to find a solution, and it's far from unique to Australia. I decided to look at Australia because they acknowledge that it's an issue and have put goals into place to solve the problem by 2030. Australia is a big, urbanized nation like many others who struggle with food waste. Solutions for Australia could likely be applied to similar countries. Food waste in Australia faces a paradox: families struggle most severely with food insecurity, but also waste the most food. A recycling style redistribution system supported by local communities and businesses would help the environment, assist families in getting the food they need, and reduce waste.

As Australia has developed, the family structure has changed. Although the idea of the archetypical family remains prominent in personal values, it's no longer a realistic social standard (Qu). From 1976-2016, single parent families with children increased while couple

families with children decreased (Qu). Divorce and not marrying to have children has become more normalized, leading to this shift (Qu). Yet food insecurity in Australian families is rising. Around 34% of Australian households are food insecure (Foodbank). The situation is even more dire with single parent families, with 69% of them experiencing food insecurity (Foodbank). The severity of these problems call for more efficient waste management. There is no reason families should be struggling when the amount of food wasted could easily feed them and more. But how does this look on an everyday scale? The cost of living in Australia has been rising since the pandemic. As of 2019-2020, the average Australian household makes 50,146 dollars annually, accounting for the average size of a household (Grattan Institute). Yet the cost of living for a couple with two kids is \$1,173.18 a week, roughly \$61,015.76 every year (Australia Institute of Family Studies). A budget that tight leaves little for emergencies or leisure. This lifestyle is a truth many families are facing. More than half of low income households are severely food insecure, leaving them to skip meals or ration food (Foodbank). Imagine you or someone you know having to skip meals just to make sure their children get enough to eat. That's the reality these people are facing. However, as I've researched, I've found a contradiction: households cause more food waste than any other stage of food production, yet they are facing historic levels of food insecurity (FIAL). Families in Australia are facing a cost of living crisis since the pandemic, which may explain the high levels of food insecurity (Foodbank). But as food waste and insecurity are complex problems, its factors must also be multifaceted. Australia's food waste takes place in many stages of food production, but the highest contributor is consumer habits (FIAL).

Consumer habits are the ways that food is managed once available for purchase or taken home. Families in particular seem to struggle with managing their food well. Familial food waste is a complicated problem caused by many factors. Large families may shop for the minority's tastes and end up with food only one or two people eat, leaving it to go bad. Or it could be a case of poor meal planning and inadequate storage. However, better habits may be developed by understanding how food waste happens, and to understand how food waste happens it's critical to understand food production. The stages of food production are harvesting, handling and storage, processing, transport and distribution, and consumption. Australian farmers lose around 2.84 billion dollars annually to food waste, meaning 25% of all fruits and vegetables grown won't ever see the shelf (Fedunik-Hofman). Most food waste takes place during the consumption stage in Australia. In Australia, households are responsible for more than two million tons of food waste (FIAL). Yet they are not the sole cause of the high numbers; a large amount of food is wasted by businesses. The false judgments of produce that have cosmetic defects causing them to be unsafe to eat is one factor. More than five hundred and twenty-seven kilotons of food are wasted in grocery stores in Australia every year ("End Food Waste Australia"). There's a need to either lower the beauty standard of produce or find a way to redistribute it to the people dealing with food insecurity; wasting food indefinitely is not an option with numerous people in crisis.

Australia isn't the only country that struggles with food waste. Many large urbanized nations face the same struggle and have come up with solutions. One interesting case study is China. China's culture is based around overconsumption. Showing you can afford to have leftovers is a sign of status, but it causes a lot of food waste. To reduce this, China has put into effect the Pride on Our Plates Campaign. It puts policies into effect that do things like fine people for ordering

excessive amounts of food, bans competitive eating, and bans streamers from streaming mukbangs (Wong). They have targeted campaigns in some of their test cities. In Hangzhou, they found it was most effective to use technology to enforce their policy by creating public forums where they would encourage or discourage certain behavior or give out fines (“Reducing Food Waste in China”). The aim of this program is to try and reduce food waste to make their economy and lifestyles more sustainable. However, it exerts a lot of government influence on the daily lives of citizens which likely won’t be accepted by Australians. The results of the Pride on Our Plates Campaign is that now 41% of businesses are purchasing food only as needed, 23% of ingredients are better processed, and 17% of people cook in a more intensive way that uses offcut materials rationally (“Reducing Food Waste in China”). The program could definitely be improved, but it’s off to a promising start. Australia could consider doing something similar to help address their food waste struggles. This legislation shows the strong effects the government stepping in to regulate the problem could have.

Denmark decided to focus on changing their consumers' habits directly. Through a combination of informational campaigns and technological solutions, they were able to reduce food waste by 25% from 2010-2015 (Harvest). Denmark has similar demographics to Australia. They have a government and population that supports reducing food waste. Public and private initiatives worked together to reduce their food waste. The nonprofit Stop Spild Af Mad was at the foreground of the waste reduction. Their name translates to “Stop Wasting Food.” They’ve had many projects, but what stood out was their REFOOD label (“Danmarks Størstebevægelse Mod

Madspild”). REFOOD is a label that certifies canteens, eateries, restaurants, and the foodservice sector as dedicated to reducing food waste (“Danmarks Størstebevægelse Mod Madspild”).

They’ve amassed 2173 partners so far (“Home - ReFood Label DK”). A certification system like this could be huge for Australia, since they’ve demonstrated a similar dedication to solving their food waste problem and high public support. This certification also pushes the UN’s Sustainable Development Goal 12, which aims to halve global food waste by 2030.

I propose that a food redistribution with a similar model to recycling be founded in Australia to redistribute safe to eat food to families in need. Households and businesses would sort food to be wasted into different categories; canned, produce, packaged, and unsafe to eat. The food would then be donated to local food recycling centers, just like how they have centers where you drive your recycling. The food would be collected from there. Safe to eat foods would be packaged by volunteer groups like Rotary Clubs and distributed to schools and community centers for pickup by families in need. The program would target businesses in particular, incentivizing their donations with a certification like the REFOOD label in Denmark. Ninety percent of Australians believe reducing food waste is a shared responsibility (Hayward). Seeing businesses take initiative to join a collective similar to Denmark’s REFOOD commitment could encourage Australians to support members of that collective, making it a worthy investment for businesses. A program like this also supports Australia’s National Food Waste Strategy, which provides the possibility of tax cuts as a way to incentivize participating in the proposed program. The inedible food collected would be sent to local waste treatment plants already using anaerobic digestion to produce biogas. In Australia, there are already some plants beginning to use this

method, such as the Yarra Valley Water's plants. Using all components of collected waste is critical to reducing food waste overall. Integrating this program in daily life as much as recycling is critical for its success. Australians already recycle. Sixty percent of materials in Australia are recycled (Ridley). The high rates of recycling participation are transferable to a guess of how much participation this program would receive. Infrastructure to make this program feasible already exists in Australia through how efficiently their recycling system is set up. Taking that model and the tools already available and translating them to help solve the food waste epidemic is a way to give those tools another function. There are a few options to fund a program like this. It may be eligible for federal grants as it lines up with Australia's goals for sustainability and what the public believes should be done. Only 25% of Australians believe the government is doing enough to solve the crisis (Hayward). That leaves 75% of people unsatisfied with the inaction and wanting the change my solution offers.

Critics may argue my solution will be ineffective because of food safety concerns and low participation. These concerns can be addressed through legal protections and previous participation in similar programs. Businesses may worry about being liable for donating food that could cause someone to get sick, however businesses with good intentions are protected by Good Samaritan laws in many Australian states. Partnering with organizations already trained in food safety like local food banks also mitigates the risk of any mishaps. Low participation can be addressed by looking at previous precedents in Australia. As stated earlier, there's a high participation in recycling programs and high public interest in reducing food waste. These two factors combined makes it a likely prediction that Australians will participate in a program like

the one I've proposed. This program is one that should be integrated slowly; starting on a small scale and using results to go bigger.

In conclusion, food waste is a growing problem that cannot be left unchecked. The world will not function if we keep permitting an unnecessary waste of resources and life. Food insecurity is a major global problem that can't be ignored. Australia acknowledges that through their National Food Waste Strategy to halve food waste by 2030. The environmental repercussions are too strong, and the solutions like making reusing food waste as common as recycling will have an invaluable impact. It would keep thousands out of struggle. The current state of global affairs exemplifies that waiting for a problem to escalate is not a solution. When we think of Australia's future, we shouldn't only visualize the wildlife, but visualize their potential to help people beat food insecurity.

Works Cited

Australian Institute of Family Studies. “New Estimates of the Costs of Raising Children in Australia | Australian Institute of Family Studies.” *Aifs.gov.au*, 2018, aifs.gov.au/media/new-estimates-costs-raising-children-australia.

Australian Institute of Health and Welfare. “Profile of Australia’s Population.” *Australian Institute of Health and Welfare*, Australian Government, 2025, www.aihw.gov.au/reports/australias-health/profile-of-australias-population.

FAO. *Impacts on Natural Resources Food Wastage Footprint*. 2013.

Fedunik-Hofman, Larissa. “Food Waste: Preventing a Multi-Billion Dollar Problem.” *Australian Academy of Science*, 30 Mar. 2020, www.science.org.au/curious/earth-environment/food-waste-preventing-multi-billion-dollar-problem.

FIAL. “FIAL NFWS Feasibility Study Report_FINAL.pdf.” *Zoho WorkDrive*, 2021, workdrive.zohopublic.com.au/external/06152b9ff5971843391f39fc4d32a847e56fb907c167a4a645887b0a4bc43000.

Foodbank. “Foodbank Hunger Report 2024 - Foodbank Reports.” *Foodbank Reports*, 7 Oct. 2024, reports.foodbank.org.au/foodbank-hunger-report-2024/.

Glick, Molly. "Transforming Food Waste into Energy." *One5c*, 14 Mar. 2024, one5c.com/food-waste-to-energy-136937409/.

Grattan Institute. "What Do Australians Earn and Own? Grattan Institute's 2025 Budget Cheat Sheet Might Surprise You - Grattan Institute." *Grattan Institute*, 2025, grattan.edu.au/news/what-do-australians-earn-and-own-grattan-institutes-2025-budget-cheat-sheet-might-surprise-you/.

Harvest, Second. "How Denmark Reduces Food Waste by Changing Consumer Habits - Second Harvest Blog." *Second Harvest Blog*, 6 Feb. 2024, blog.secondharvest.ca/2024/02/06/how-denmark-reduces-food-waste-by-changing-consumer-habits.

Hayward, Brittany. "Support for Campaign Could Put \$2500 Back in the Pocket of Every Australian Family When They Need It Most - End Food Waste Australia." *End Food Waste Australia*, 11 Apr. 2025, endfoodwaste.com.au/support-for-campaign-could-put-2500-back-in-the-pocket-of-every-australian-family-when-they-need-it-most/.

Krause, Max, et al. *Quantifying Methane Emissions from Landfilled Food Waste*. Oct. 2023.

McCrindle. "Food Insecurity in Australia - McCrindle." *Mccrindle.com.au*, 15 Oct. 2017, mccrindle.com.au/article/food-insecurity-in-australia/ .

Planetark.org, 22 Feb. 2023,

planetark.org/newsroom/news/how-much-waste-does-australia-generate-and-where-does-it-go

Qu, Lixia . "Families Then & Now: Households and Families | Australian Institute of Family Studies." *Aifs.gov.au*, Australian Institute of Family Studies, July 2020, aifs.gov.au/research/research-reports/families-then-now-households-and-families.

Ridley, Rachael. "How Much Waste Does Australia Generate and Where Does It Go?"

Sheridan, Jennifer, et al. "Melbourne Wastes 200 Kg of Food per Person a Year: It's Time to Get Serious." *The Conversation*, 3 June 2016, theconversation.com/melbourne-wastes-200-kg-of-food-per-person-a-year-its-time-to-get-serious-60236.

Wong, Chloe. "Food Waste in China and How the Government Is Combating It."

Earth.org, 28 Jan. 2022, earth.org/food-waste-in-china/.

"Danmarks Størstebevægelse Mod Madspild." *Stop Spild Af Mad*,

stopspildafmad.org/vores-projekter/.

“GANDER RETAIL WASTE SAVING PROGRAM - End Food Waste Australia.” *End Food Waste Australia*, 4 Jan. 2024,
endfoodwaste.com.au/gander-retail-waste-saving-program/ .

“Home - ReFood Label DK.” *ReFood Label DK*, 21 May 2025, refoodlabel.dk/.

“Reducing Food Waste in China: Experiences from Six Cities › | SWITCH-Asia.”
SWITCH-Asia, 2024,
www.switch-asia.eu/news/reducing-food-waste-in-china-experiences-from-six-cities/.