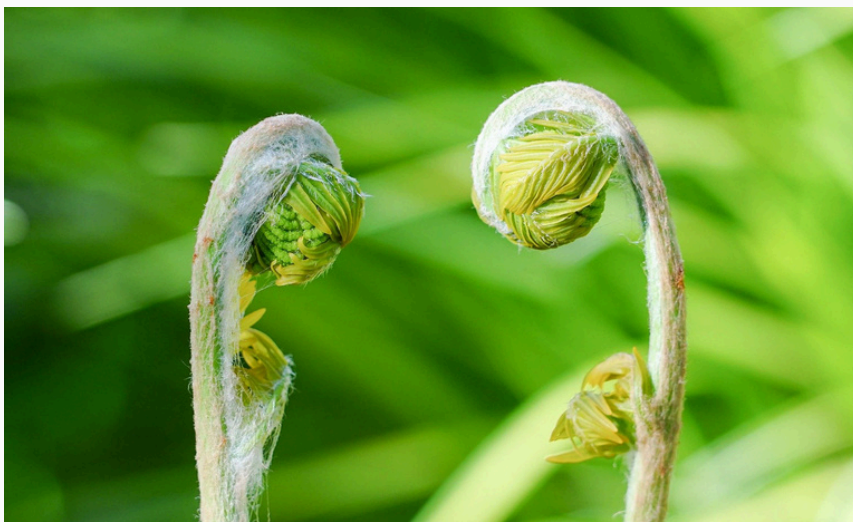




## WASTE REDUCTION AND THE CIRCULAR ECONOMY

This year, the theme of Laudato Si' Week (19 - 26 May 2024) is inspired by the symbol for Season of Creation 2024, the "firstfruits" of hope, calling us to gather in community to contemplate and nurture seeds of hope for our "suffering planet" (Laudate Deum 2), together "groaning, crying, and actively striving for new life amidst the struggles." ([Season of Creation, 2024](#))

This edition of *Just Now* will therefore explore Australia's progress in transitioning to a 'circular economy' - a hopeful vision for a transformation of our current throwaway economy into one where waste is eliminated, resources are circulated, and nature is regenerated.



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# The Global Waste Crisis

Annually, the world is generating more than two billion tonnes of municipal solid waste (MSW), which includes all residential and commercial waste. MSW typically includes:

- food waste;
- packaging;
- household items including electronic goods;
- clothes and shoes; and
- personal hygiene products.

Some of these products pose huge threats to the environment and human health, particularly hazardous chemical waste, electrical and electronic waste (e-waste), textiles, plastics and food waste.

Additional significant amounts of agricultural, construction and demolition, industrial and commercial, and healthcare waste are also generated, although global data is significantly lacking for these other waste streams.

A report by the UN Environment Programme (UNEP) found that 38 per cent of the MSW generated globally in 2020 was 'uncontrolled,' meaning the waste, either collected or uncollected, ended up being dumped or burned, rather than recycled or disposed of in a controlled facility.



**“Access to waste collection services varies significantly within and between regions. In higher-income regions almost all municipal solid waste is collected, while less than 40 per cent of municipal solid waste is collected in lower-income countries.”**

Beyond an Age of Waste - Global Waste Management Outlook 2024, UNEP.



## Waste and the Cry of the Poor

Uncontrolled waste disposal practices, particularly dumping and burning, pose a significant risk to human health. It has been estimated that between 400,000 and 1 million people in the Global South die each year from diseases related to mismanaged waste, including diarrhoea, malaria, heart disease and cancer. Dump sites attract vermin, fostering breeding grounds for zoonotic disease. Pollutants and contaminants can leach from the site into freshwater sources and associated food chains. These can bioaccumulate in the food chain and in mothers' breast milk, with potential multi-generational impacts.

The waste accumulation can also block drains, leading to local flooding and/or stagnant water that encourages vector-borne illness, and poses the risk of landslides, with multiple fatal occurrences recorded annually.

Open burning causes air pollution, generating various airborne pollutants including Unintentional Persistent Organic Pollutants and other chemicals of concern for public health, as well as black carbon. Dumpsites are also prone to fires, which can smoulder beneath the surface for extended periods of time months, exposing millions of people to pollutants.

Furthermore, excess waste encourages the engagement of informal waste processing, sometimes at a household level, creating poor working and living conditions and health issues. Waste workers in informal economies who have no health or social protections are also vulnerable to exploitation.

Developed nations also have a history of exporting their excess waste to their developing neighbours, a form of waste "colonialism." Despite having implementing import restrictions and bans, and multilateral environmental agreements like the Basel Convention, developing nations continue to bear the brunt of the world's plastic waste, which arrives from places including the US, the EU and Australia, through both illicit and legal channels, overwhelming domestic processing and recycling capacities.

**“Working conditions at informal processors are hazardous, with burners operating at 260-400°C. Workers have little or no protective equipment. The discharge from a whole village of household processors concentrates the air and water pollution in the local area.”**

*Monique Retamal, et. al.,  
“Here's what happens to our plastic recycling when it goes offshore,” The Conversation,  
January 30, 2019.*



# Waste and the Cry of the Earth

Waste contributes to the triple and interlinked planetary crises of climate change, biodiversity loss and pollution.

## Climate Change:

While fossil fuels account for 55% of total global greenhouse emissions, the remaining 45% relates to the way in which products, materials, and food are designed, produced, and used in our 'take-make-waste' linear economy.

Poorly managed waste creates a wide range of emissions that contribute to climate change, and are produced by the transporting, processing and disposing of waste. Methane is generated by decomposing organic waste in landfills and dumpsites, and black carbon produced by the open burning of waste. In 2016, open burning of plastic waste released approximately 1 gigaton of equivalent carbon dioxide (GtCO<sub>2</sub>e) of greenhouse gases, a figure expected to grow further on our current trajectory. Black carbon also sits on the ocean surface, absorbing sunlight and contributing to the warming of the waters.

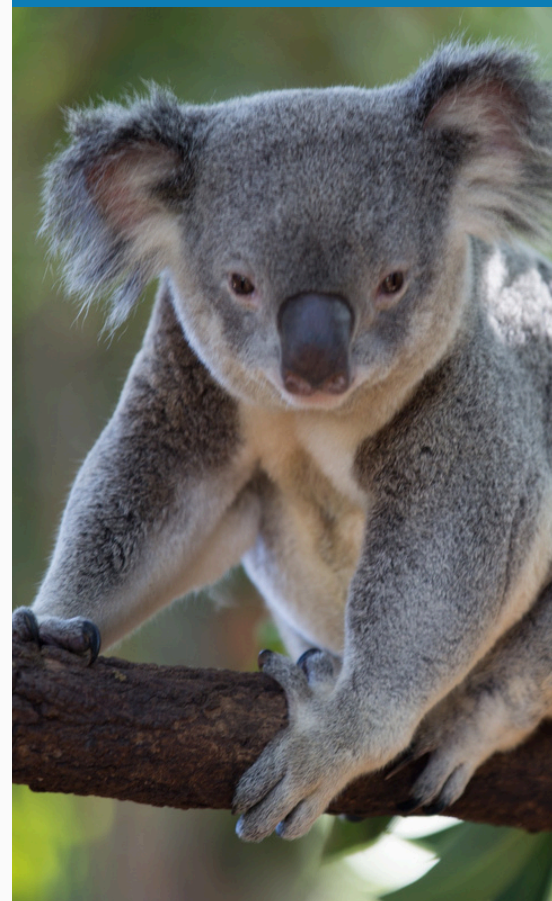
## Biodiversity Loss:

Poor waste disposal management and practices can leach toxic chemicals into soil, water bodies and the air, causing irreversible harm to flora and fauna, biodiversity and entire ecosystems. The persistent polluting of the environment by waste is one of the drivers of biodiversity loss, with an estimated 90% of this loss attributed to land-use change and related consumption of resources. The planet is now threatened with its sixth mass species extinction, with projections of the loss of more than a million species over the coming decade.

Plastic waste strongly effects aquatic environments, and is known to have impacted more than 800 marine species, including all sea turtle species, more than 40% of cetacean species, and 44% of marine bird species.

**“One million plants and animals are threatened with extinction. 1-2.5% of birds, mammals, amphibians, reptiles and fish have already gone extinct; population abundances and genetic diversity have decreased; and species are losing their climatically determined habitats.”**

WORLD WILDLIFE FUND,  
LIVING PLANET REPORT  
2022.



## Pollution:

Waste disposed of on land can cause long-term pollution of soil and water bodies with heavy metals, endocrine-disrupting chemicals and other hazardous compounds, while open burning of waste releases highly toxic “forever chemicals” that can travel long distances in the air, persist in the environment, biomagnify and bioaccumulate in ecosystems.

Mismanaged plastic waste is one of the main causes of environmental plastic pollution. At present 22% of plastic waste evades waste management systems, ending up in terrestrial or aquatic environments, especially in low- and middle-income economies, with a reported estimate that 56% (239 million tonnes) of global annual plastic waste production by 2040 will be subject to mismanagement. In 2019, 6.1 Mt of plastic waste leaked into aquatic environments and 1.7 Mt flowed into oceans. There is now an estimated 30 Mt of plastic waste in seas and oceans, and a further 109 Mt has accumulated in rivers.

A 2020 study revealed that terrestrial microplastic pollution has led to the decrease of microorganisms that live below the surface, leading to less fertile soil and land.



**“Every minute, the equivalent of one garbage truck full of plastic is dumped into the ocean. Meanwhile, pollution and chemicals are poisoning our water, air and soil.”**

*UN Secretary-General António Guterres' message on International Day of Zero Waste, observed on 30 March 2023.*



## Australia's Waste Crisis

The National Waste Report 2020 revealed that Australia's waste had increased to 74 million tonnes yearly in 2018 - 19. Particularly concerning is the quantity of plastic waste now produced in Australia. Since the year 2000, the total amount of plastic consumed in Australia has more than doubled, with estimates indicating that by 2049-50, plastic consumption will have increased by a further two-and-a-half times. This significant increase in consumption is generating more plastic waste than Australian recycling and recovery attempts can deal with. More than 40% of all waste is reportedly sent straight to landfills, including 84% of all plastic waste. Of the 60% of all waste that avoids landfill, a significant amount of it has been found to sit in stockpiles.

Compounding the issue is that Australia has historically had limited local markets for household recyclables, predominantly relying on overseas markets to purchase and reprocess the waste. Of all recycling collected from households, business and industry, Australia was thought to export an annual 1.27 Mt of waste to China, however China's 2018 imposition of import restrictions for waste resulted in Australia losing the recycling channel for a third of our paper and plastics. Following China's lead, several other Asian countries have also increased import regulations for waste, including India, Taiwan, Malaysia and Thailand, with Vietnam also expected to do so from 2025, further limiting Australia's waste export options.



**“Australia’s consumption of plastic has increased steadily this century, and forecasts are for continued growth. For many years, Australia has dealt with its plastic waste crisis by shipping waste plastic overseas, burning or burying it. This created an ‘out of sight, out of mind’ mentality.”**

LILIA ANDERSON &  
NINA GBOR, PLASTIC WASTE IN  
AUSTRALIA  
AND THE RECYCLING GREENWASH,  
THE AUSTRALIA INSTITUTE.



# Australia's Waste and Circular Economy Policies

In recent years, the Australian Government has developed numerous policies to tackle the mounting waste problems and transition Australia to a 'circular economy.' The government defines a 'circular economy' as one in which sustainable consumption and production, as well as nature positive outcomes, are achieved, through a focus on products being recycled, re-manufactured or re-used after they have served their initial purpose.

Supporting this transition are the 2018 National Waste Policy, the 2019 National Waste Policy Action Plan, the Australian Packaging Covenant, and a goal to recycle or reuse 100% of plastic waste and end plastic pollution by 2040. These include commitments such as:

- stopping the export of key waste streams;
- increasing the resource recovery rate;
- halving food waste sent to landfill;
- improving the reusability, recyclability or and/or composability of packaging and phasing out problematic and unnecessary single-use plastic packaging;
- increasing local processing and recycling capacity; and,
- increasing purchase of products with recycled content.

In response to the import restrictions introduced by China, Australia banned the export of unprocessed waste overseas through introducing the Recycling and Waste Reduction Act 2020. These bans have meant that Australia must now be developing greater capacity to process its own waste.



**“Australians want to do their bit to reduce their waste, recycle household products and lighten their impact on the planet. Reducing waste – particularly plastic waste – is a priority for the Government.”**

MINISTER FOR THE ENVIRONMENT AND WATER, THE HON TANYA PLIBERSEK MP, FEBRUARY 2023



# Challenges for Australia's Waste and Circular Economy Policies

## Export regulations imposed through the *Recycling and Waste Reduction Act 2020*

Despite the ban against unprocessed waste exports, Australia's plastic waste exports to non-OECD countries actually increased by 13% from 50.9 million kg per year in 2022, to 61.1 million kg per year in 2023. Some of this occurred legally, with the Federal Environment Minister granting a number of exemptions under the Act for some categories of household plastic waste and supermarket softplastics which had caused stockpiling issues. Other exports occurred illegally, with claims being made that certain waste management companies in Australia are hiding plastic waste in paper and cardboard exports.

This indicates that the waste exports ban was put in place before local capacity, infrastructure and technology was developed to adequately deal with Australia's waste. Ethically, the ongoing exportation of waste allows Australia to forgo the responsibility to tackle its own waste crisis, perpetuating a "waste colonialism" by shifting the problem onto developing nations.

## Commodification of the Circular Economy

The Federal government states that "adopting circular economy principles, models and systems will put our economy on a more sustainable footing for growth over the long-term," demonstrating that recycling and waste policies remain largely focused on economic growth, essentially commodifying waste and recycling and encouraging increased manufacturing and production volumes to ensure its continuation. The *UNEP Global Waste Management Outlook 2024* states that a circular economy means decoupling economic growth from resource use (and therefore waste generation). A true circular economy should therefore measure its success in environmental and social outcomes, rather than growth of the economy, shifting away from models of endless economic growth.

**"A true circular economy should therefore measure its success in environmental and social outcomes, rather than growth of the economy, shifting away from models of endless economic growth."**





## Policy Emphasis on Recycling

Government policies emphasise increased recycling as the vehicle to achieve a circular economy. While recycling is a component of a circular economy, the circular economy waste hierarchy prioritises the avoidance of waste generation through a reduction in production and reuse of already circulating materials. *This is because it is impossible to rely on recycling to achieve zero waste.* Most materials cannot be recycled infinitely, with degradation into less and less recyclable material over time. This means that the primary focus of Australia's transition to a circular economy should be on avoiding the generation of waste in the first place, with recycling a tool to manage unavoidable excess waste responsibly, rather than utilising recycling as the primary solution.

## Recycling Plastic

Government commitments to reduce the amount of plastic waste, emphasise the recycling of plastic over reducing its production and consumption. This ignores the reality that recycling plastic is inefficient, expensive and hazardous, and that there is little demand for recycled plastics, with only about 15% of all plastic waste generated over the last 20 years in Australia being recovered through recycling, composting or energy recovery.

Challenges for local processing includes that there are thousands of different types of plastic, which cannot be recycled together. Contaminants and colourants pose additional issues. Recycling also creates further pollution through the shedding of large quantities of microplastics, which inevitably end up in the environment via the processing plants' waste. Furthermore, there are limits on how many times plastic can be recycled because of degradation in its composition each time it is processed. Just 1% of plastic has been recycled more than once. Other recycled plastic bottles, cups and takeaway containers generally cannot be made into new food grade packaging because of toxicity risks. Plastic absorbs toxic byproducts from the recycling process, as well as toxic chemicals contacted throughout its lifecycle.

**“The primary focus of Australia’s transition to a circular economy should be on avoiding the generation of waste in the first place.”**



## What can you do?

### **CRA's Action:**

The effectiveness of the Government's waste reduction and recycling policies in delivering a circular economy is currently being scrutinized by a Senate Inquiry. You can follow progress [here](#), and read CRA's submission to the Inquiry [here](#). In it, CRA has made numerous suggestions for policy change, including introducing further 'right to repair' legislation to support the repair and re-use of already circulating products, and importation restrictions to slow down production and consumption.

### **Your Action:**

On an individual scale, you can implement circular economy principles in your life through actions such as avoiding single use plastics, purchasing secondhand items, repairing where possible and/or making purchases with longevity in mind. See some further suggestions from Clean Up Australia [here](#). Find your local repair cafe on the interactive map [here](#). Find out if your local area has a 'Library of Things' available for borrowing, such as [this example](#) in Sydney and [this example](#) in Melbourne.

**“We must transform every element of our take-make-waste system: how we manage resources, how we make and use products, and what we do with the materials afterwards. Only then can we create a thriving circular economy that can benefit everyone within the limits of our planet.”**

*Ellen Macarthur Foundation*

## On Another Note . . . A Message from Anne Walker, National Executive Director

In these times of incredible global insecurity, CRA continues to support the work of its longtime partner [ICAN Australia](#) (International Campaign to Abolish Nuclear Weapons), and their campaign to have Australia sign and ratify the UN [Treaty on the Prohibition of Nuclear Weapons](#). The Treaty is an internationally agreed framework for the timely elimination of nuclear weapons, strengthening nuclear safeguards and containing obligations to assist victims and remediate environments harmed by nuclear weapons use or testing. ICAN Australia have recently released a [video](#) of members of the cross-party 'Parliamentary Friends of the Treaty on the Prohibition of Nuclear Weapons,' renewing their support for Australia's signing and ratification of the Treaty. Accompanying the video is a [digital action tool](#), where supporters can send a message to their local MP, calling on Australia to join the Treaty. You can learn more about the Treaty from a webinar CRA hosted with ICAN Australia [here](#).



We thank our member institutes for their continued support for the work CRA does in advocating for the marginalised in our society and welcome any feedback.

Warm regards,

A handwritten signature in cursive script that reads "Anne".