



# ACOR

AUSTRALIAN COUNCIL  
OF RECYCLING

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## AUSTRALIA IS LOSING THE RECYCLING RACE!

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June 2016



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## 1. Executive Summary

Australia is one of the richest countries in the world and also one of the worst countries in terms of waste generation, therefore we should have a leading recycling rate. However, Australia is losing the recycling race, ranking only 13th in the world.

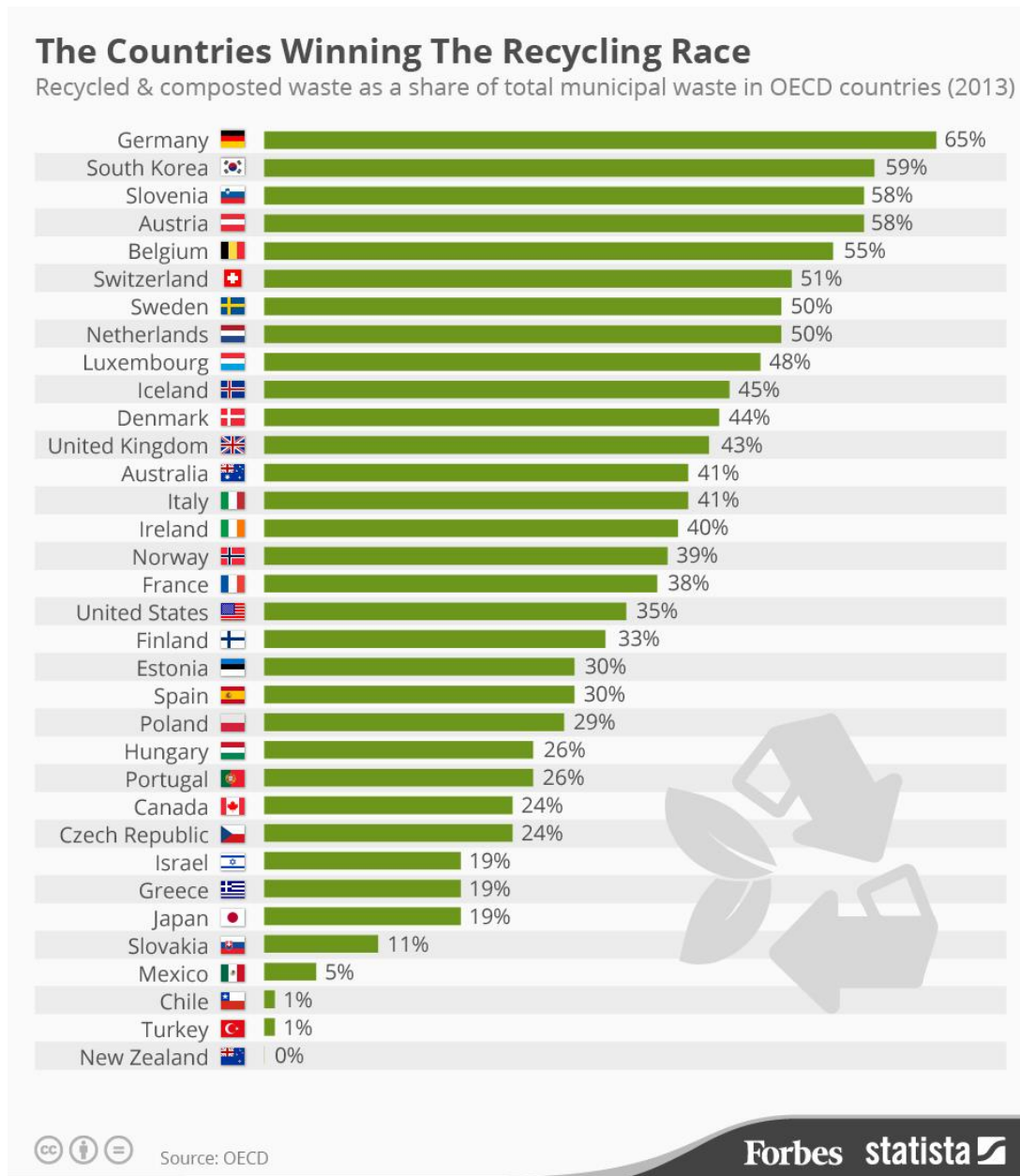
This report exposes Australia's recycling performance by international standards, relative to the level of waste generation and GDP per capita and gives recommendations for the next Federal Government to improve recycling rates in Australia. Notably, no major party has mentioned recycling or waste managing in the campaign so far.

The report recommends all parties in the Federal election commit to the following five recommendations to improve Australia's recycling performance:

1. The parties recommit to the National Waste Strategy (previously agreed by all states and territories and the Commonwealth);
2. Reinstatement of the long standing green procurement policies abolished by the Commonwealth by Federal Government (e.g. use of recycled materials such as paper and support for those markets);
3. Enforcement of Australia's anti-dumping regulations (e.g. dumping of metals by China);
4. An increase in the national television and computer recycling scheme's target from 50% to 70%, or mandate a scheme under the product Stewardship Act;
5. A mandatory product stewardship scheme for tyres, batteries and fluorescent lights.

Logically as one of the richest countries in the world, with one of the worst rates of waste generation Australia should have a world leading recycling rate.

## 2. Global data on waste generation and recycling



**Figure 1. Recycling rate per country**

Figure 1 above represents recycled and composted waste as a share of total municipal waste in OECD countries (OECD 2013). According to the figure, Germany is the leading country in terms of recycling rate (65%). Australia, while produce the most amount of waste, **only ranked 13<sup>th</sup> in the recycling race**. The amount of waste generated globally is increasing rapidly. Studies have shown that the amount of waste generated often increases with a country's gross domestic product (GDP). Australia is among the top countries in the world in terms of the highest GDP and Human Development Index (UNDP 2015). (Figure 2)

### The 20 countries with the largest gross domestic product (GDP) per capita in 2015 (in U.S. dollars)

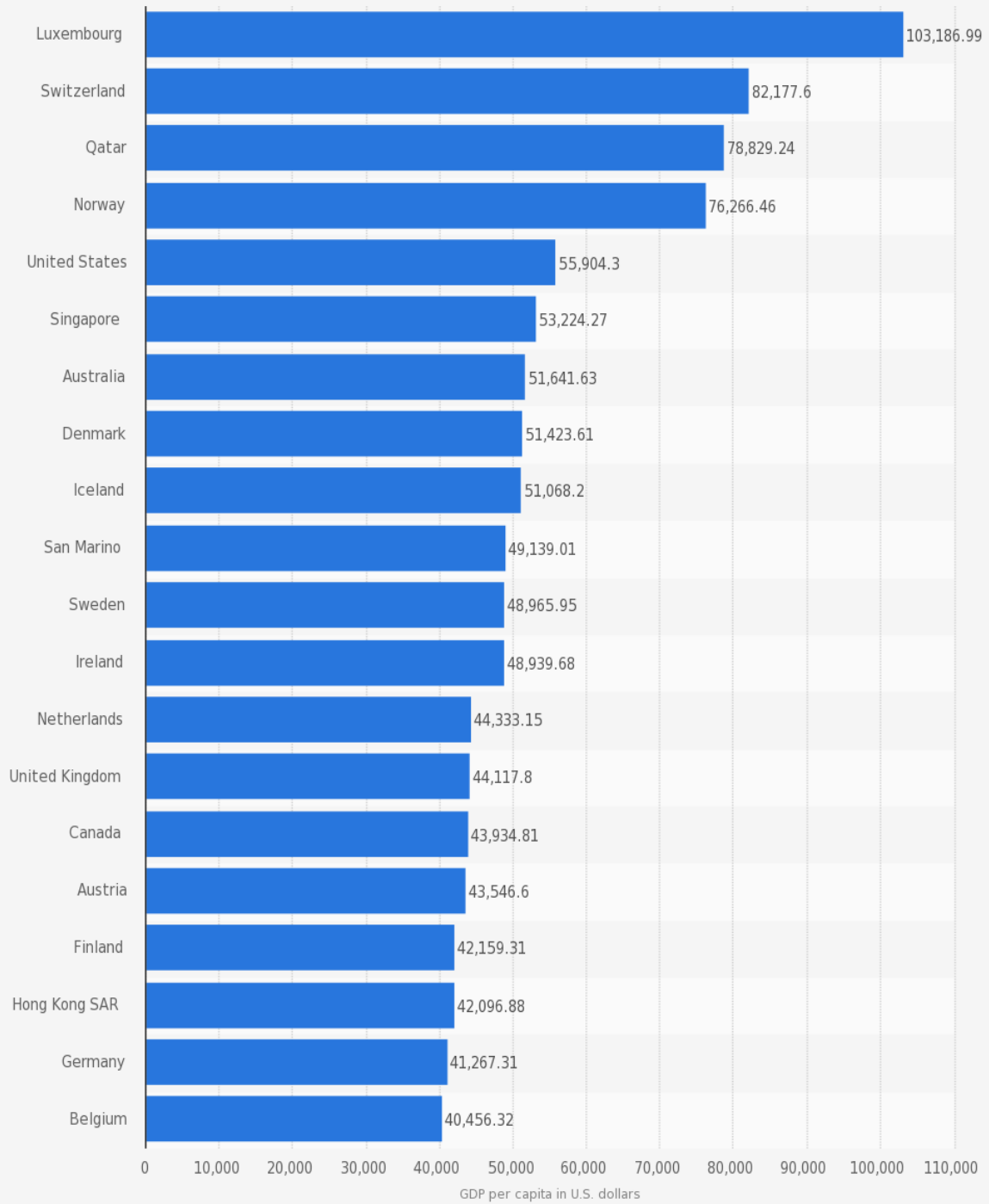


Figure 2. Top countries with the largest GDP per capita

Australia is also one of the top countries that produce the most waste. Waste generated in Australia grew at a much faster rate than the economy, **increasing by approximately 163% between 1996-97 and 2013-14 (ABS 2016)**. The growth in the amount of waste generated per capita in Australia has been driven by a number of economic, demographic and geographic factors. A consequence of Australia's fast growing and materially intensive economy is the production of large quantities of waste. Growth in waste generation is positively related to growth in household incomes and corporate earnings. In addition, the growth in waste generation in per person term is driven by changes in population demographics and lifestyles.

In 2012, Australians generated approximately 2.2 tons of waste per person per year, while in the European Union (EU), each person generates only about 480kg of waste per year. It is obvious that we are producing a lot more waste, yet our recycling rate still remains low.

### **3. Environmental impacts of waste generation**

Wastes can be under solid, liquid or gaseous form. However, this report will primarily focus on solid waste. Solid waste can be classified as municipal, commercial and industrial and construction and demolition waste (ABS 2010). Most of waste generation will end up in landfills – the oldest and most common form of waste treatment, where the wastes are buried underground for several years. Unfortunately, there are serious environmental impacts associated with landfills such as greenhouse gases and leakage into the environment through leachate. Leachate is the liquid drained from a landfill, which may vary in composition regarding the age of landfill and the type of waste it contains. Leachate results from precipitation percolating landfill from waste moisture when it is composed. The liquid is extremely toxic to land as well as ground and surface water systems. Leachate liquid can run directly into lakes and rivers and poison aquatic organisms. Toxins from electronic waste from landfill also contain hazardous components such as mercury, arsenic, cadmium, etc. of heavy metals, carcinogens and DDT. These toxins will end up in the land and water, causing groundwater and food chain contamination.

These materials are persistent and become concentrated at higher levels in the food chain. Other environmental consequences of landfill may include energy use in transporting waste, noise and odours impacting local amenity, as well as air emissions and human health and environmental impacts through the transportation of wastes to landfill.

Landfill gas is generated by the decomposition of waste in landfills (EPA Victoria 2012). Landfill gas is primarily made up of 99% of methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>), with the remaining 1% is composed of other volatile organic compounds and trace components (Environment Agency 2002). Methane is approximately 21 times more potent compared to carbon dioxide in terms of global warming potential. High concentration of greenhouse gases in the air can result in negative health effects on people who live near landfill areas and contribute to climate change problems at different geographical scales. While the federal Government is paying landfill owners to capture this methane through the Emissions reduction fund, capture should be simply mandated.

#### **4. Role of recycling in the waste management system**

Recycling is the process of collecting and processing materials that would otherwise be thrown away as rubbish and turning them into new products (EPA 2016). Recycling benefits society in many ways, including financial, social and environmental benefits. Apart from creating new job opportunities for the society, recycling has significant environmental advantages. First, recycling helps reduce the amount of waste sent to landfills. In addition, recycling help conserve natural resources such as timber, water and minerals. It is estimated that 1 million tons of steel recycled can save 1.3 million tons of iron ore, 720 000 tons of coal and 62 000 of limestone. Further, recycling helps save energy and reduce greenhouse gas emissions that contribute to global climate change. It requires more energy to manufacture a brand new aluminium can than it does to recycle 20 used cans. Recycling can help eliminate most of the environmental risks associated with landfill mentioned before such as land and water contamination, toxins and leachate problems.

Notably waste and recycling have not been mentioned by any of the major parties in this election campaign. The National Waste Policy provides a framework for Australia's Waste management until 2020. It lists 16 Actions under six key directions:

**1. Taking responsibility**

- a. Product stewardship framework legislation: enacted in 2011. The 2013-14 list of products for consideration include paint, handheld batteries, packaging, and air conditioners and refrigerators with small gas charges;
- b. Embody and promote sustainable procurement.

**2. Improving the market**

- a. Introduce a national definition and classification system for waste: 'Australian Waste Definitions' (2012) is a compilation of definitions from the legislation, regulations, instruments, policy and strategy documents of each jurisdiction;
- b. Develop national principles, specifications, guidelines and standards to remove impediments to effective markets for potential waste: 'Australian Recycling Sector' report (2012) overviews the sector and triple bottom line benefits, 'beneficial reuse and resource recovery of waste materials' (2013) inventories guiding principles from all jurisdiction;
- c. Provide access to knowledge and expertise in sustainable procurement and business practices: various state/territory programs.

**3. Pursuing sustainability**

- a. Phase down biodegradable material sent to landfill: 'National Food Waste Assessment' (2012) collates 1,262 food waste studies, plus various state/territory organics/food programs;
- b. Ensure health/safety risks from landfill gas are managed through appropriate regulation and licensing: 'closed landfill guidelines' (2012) and the Model of Australian Landfills Project to understand how chemicals and other substances behave in landfill and leachate (was due mid-2015);
- c. Develop a strategy to address emissions from landfills and other waste activities: \$3.87 million to help 17 Victorian rural landfill operators transition to best practice;
- d. Achieve major improvements in waste avoidance and reuse in commercial and industrial waste: 'place-based approaches to commercial and industrial waste and recycling' (2012) and various state/territory programs;



- e. Encourage best practice waste management and resource recovery for construction and demolition projects: 'construction and demolition waste guide – recycling and reuse across the supply chain' (2012).

**4. Reducing hazard and risk:**

- a. Meet international obligations to: reduce hazardous materials entering the waste stream; dispose of and move trans-boundary waste in an environmentally sound manner in appropriate facilities: 'Hazardous Waste Data Assessment' (2013) compiles data and information on hazardous waste volumes, plus a program to monitor and trace chemicals of concern (conclude 2015);
- b. Adopt an internationally consistent system to reduce hazardous substances in products and articles: 'Consultation Regulation Impact Statement for Hazardous Substances in Products' (2013).

**5. Tailoring solutions:**

- a. Identify and enhance regional and remote waste and resource recovery actions: NSW Aboriginal lands clean-up program (2012-13);
- b. Audit existing waste infrastructure and local capability in selected remote Indigenous communities: undertaken as part of a larger municipal and essential services audit.

**6. Providing the evidence:**

- a. Publish a three yearly waste and resource recovery report: 'National Waste Report 2013'.

Progress against these directions has slowed almost to a complete halt since the strategy was agreed to in 2010 by the Commonwealth and all States and Territories.

## **5. Recommendations**

ACOR calls on all parties contesting this Federal election to commit to the following recommendations to improve Australia's recycling performance:

1. The parties recommit to the National Waste Strategy (previously agreed by all states and territories and the Commonwealth);
2. Reinstatement of the long standing green procurement policies abolished by the Commonwealth by Federal Government (e.g. use of recycled materials such as paper and support for those markets);
3. Enforcement of Australia's anti-dumping regulations (e.g. dumping of metals by China);
4. An increase in the national television and computer recycling scheme's target from 50% to 70%, or mandate a scheme under the Product Stewardship Act;
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