



## Paper and Cardboard

Despite the rapid development of electronic communication systems, demand for paper products is still growing. In 2012-2013, Australians consumed 3,672,000 tonnes of paper with only 45% recycling rate<sup>8</sup>. This consumption costs millions of trees - one great reason to recycle

### The Problem

Paper is one of the most important and widely used consumer materials with an endless ability to be transformed.

If it is writing paper, paper used for printing, magazines, newspapers, cardboard or packaging paper all of them are made out of a valuable resource and should be recycled for reuse.

#### How is paper made?

The basic paper making process has not changed for 2000 years. Fibres are made out of wood and, soaked in liquid, drained on a fine wire screen and then dried under pressure and heat.<sup>6</sup>

#### Impact of paper waste on the environment

##### Production

Modern paper production involves mechanical, chemical - or a combination of both - pulping to convert raw materials into various paper products. These processes consume large amounts of energy and use valuable natural resources, including trees and water. Certain processing techniques such as bleaching are also known to be environmentally harmful.

##### Trees

Trees are the main resource in the paper production, a tonne of paper consumes approximately 20 full-grown trees while recycling 1 tonne of paper saves 13 trees<sup>1</sup>.

##### Water

To make just one tonne of paper out of virgin material over 90,000 litres of precious water are used which will fill 450 rain barrels.<sup>1</sup>

##### Greenhouse gas emissions

When paper goes to landfill it produces dangerous greenhouse gases during decomposition. But already the production of paper emits 1,46 tonnes of greenhouse gases per tonne of paper produced.<sup>4</sup>

The average office worker bins around 50 kg of high-grade paper a year, a staggering 10,000 sheets of A4.

##### Landfill space

Australians send 1.9 million tonnes of paper to landfill each year<sup>5</sup> and most of it can be recycled. Newspaper is the most abundant paper waste, followed by cardboard and magazine/advertising material. All this waste fills up our landfill space, space we are fast running out of.

##### Rubbish

In 2014, paper and cardboard items accounted for 13% of the total rubbish collected on Clean Up Australia Day. Every Australian office worker uses about 10,000 sheets of A4 paper each year, with approximately 50% of this going straight to landfill.<sup>7</sup>

#### Did you know?

- Each tonne of paper that is recycled saves: almost 13 trees, 2.5 barrels of oil, 4100 kWh of electricity, 4 cubic metres of landfill and 31,780 litres of water.<sup>2</sup>
- By recycling paper and cardboard 51% of the environmental impact of using virgin material can be saved.<sup>1</sup>
- 17 trees can absorb the carbon dioxide emitted from your car each year, trapping the carbon in the wood and releasing the oxygen back into our atmosphere.<sup>1</sup>
- All newspaper manufactured in Australia have a recycled content of up to 40%.<sup>2</sup>





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## The Solution

### Paper recycling

Making paper from virgin materials requires not just more energy and resources but also chemical pre-treatment. Recycling paper will contribute to sustainable resource usage and reduce the amount of waste to landfill.

Paper can be successfully recycled back into a variety of day to day products such as newspaper, office paper, packaging and cardboard. Before it reaches the limit of its useful life paper can be recycled many times.

### What can I do?

There are different steps you can get involved in: Follow the well-known reduce, reuse & recycle principle and when shopping, keep your eye out for products made from recycled paper.

### Reduce, Reuse & Recycle

Protect our environment by reducing, reusing and recycling paper and cardboard,

#### Reduce

- Send e-mail instead of distributing printed documents
- Minimise printing and use double sided copying where possible
- Ask to be removed from junk mail lists and place a 'No Junk Mail' sign
- Avoid buying goods which use excessive packaging.

#### Reuse

- Use unwanted printouts as notepaper
- Reuse gift-wrapping paper, paper bags, paper boxes
- Use shredded paper as packaging
- Sell old books and magazines to second hand dealers, or donate them to libraries or charities.

### Recycle

- Support recycling programs by buying recycled paper and cardboard products
- Set up a container for paper recycling at home, the office or at school, especially next to photocopiers or printers
- Contact your council for information on your local paper-recycling scheme.

### Buy Recycled

When we 'buy recycled' we are increasing the demand for recycled content products and encouraging the manufacture of recycled products, rather than products made from virgin materials.

#### Materials that can be recycled

Cardboard boxes
Newspapers, magazines and brochures
Photocopy paper and wrappers
Computer printouts
Envelopes (even those with windows)
Manila folders
Phone books

#### Materials that can't be recycled

Carbon and self carbonised paper
Facial tissues and paper towels
Sticky tape and adhesive labels
Tissue paper
Wax or plastic coated boxes or paper
Thermal fax paper

### References

- 1 VISY Recycling  
[www.visyrecycling.com.au](http://www.visyrecycling.com.au)
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- 3 Zero Waste, SA  
[www.zerowaste.sa.gov.au](http://www.zerowaste.sa.gov.au)
- 4 Australian Plantation Products and Paper Industry Council  
[www.a3p.asn.au](http://www.a3p.asn.au)
- 5 Department of the Environment, Water, Heritage and the Arts, A National Waste Policy: Managing waste to 2020  
Australasian Paper Industry Association Ltd.  
[www.environment.gov.au](http://www.environment.gov.au)
- 6 Paper Industry  
[www.paperindustry.com/paper-making-process.asp](http://www.paperindustry.com/paper-making-process.asp)
- 7 WME  
[www.wme.com.au](http://www.wme.com.au)
- 8 Australia Department of Agriculture  
Australian forest and wood products statistics  
<http://www.conservatree.org>

*Remove staples, string, paper clips, metal foil, sticky tape, food remnants and dirt from paper before recycling it.*