



sustainability through  
science and innovation

## Our Environmental Commitment

At **cesar** we believe healthy ecosystems are fundamental to our future. A thriving and sustainable world can be achieved where the environment is properly balanced with the needs of business and the community.

Caring for the environment is at the heart of what we do for our clients. In leading by example, we are committed to also taking responsibility for the impact that our staff and operations have on the environment.

We will:

- Understand and apply best practice environmental management options that are appropriate for our business;
- Work to achieve the environmental expectations of our staff, clients, suppliers and local community;
- Improve efficiency of our office and operations to minimise water and raw material use, energy consumption, waste and pollution generation;
- Create awareness among our staff of the potential environmental effect of operations with which they are involved, and how they can work towards minimising these environmental effects;
- Conduct regular assessments of the environmental effects of our operations to identify potential areas for improvement, and to follow through with programs to achieve these improvements;
- Develop policies and procedures to ensure the longevity, consistency and usefulness of environmental initiatives;
- Continue to hold environmental sustainability as a core company value.

Using these guiding principles, we will strive to continuously improve our environmental management.

This report outlines how **cesar** is managing its impact on the environment including:

- the environmental commitment
- carbon footprint analysis, 2010/11
- waste analysis and actions, 2011/12
- actions underway to help reduce environmental impact, 2011/12

### References:

*The Carbon Footprint of Victoria's Small and Medium Enterprises, A Carbon Down Research Report*, Carbon Down (climate change partnership between VECCI and the Victorian Government), April 2011.

*This report updated 3<sup>rd</sup> August 2012*

## Measuring and Monitoring

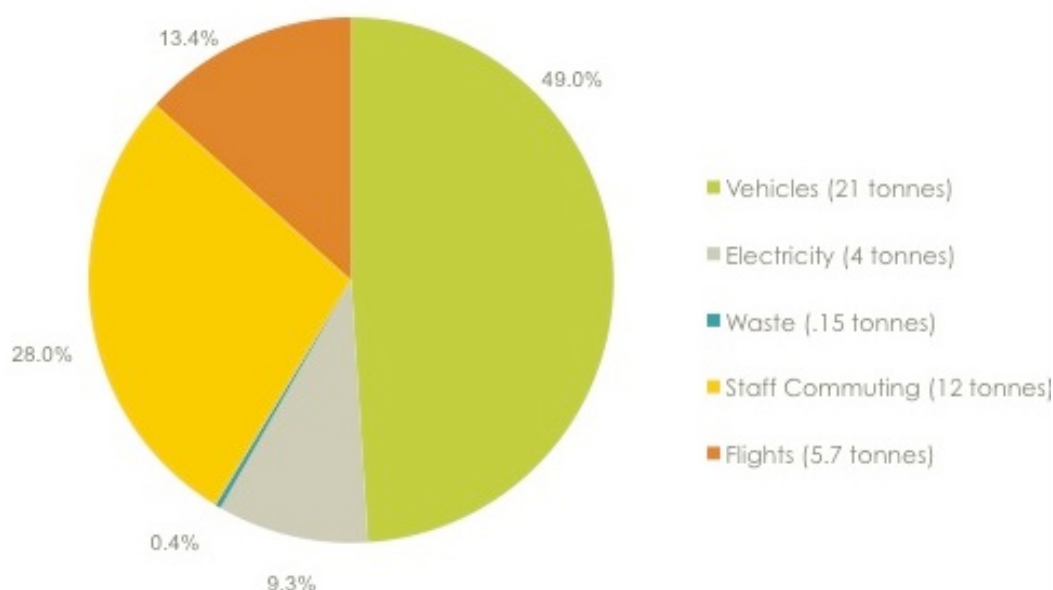
Measuring and monitoring **cesar**'s impact is a critical part of our environmental management work. It allows us to quantify our impact, identify areas of priority and track performance overtime. As the business grows we may not be able to reduce our overall footprint but we do want to manage it responsibly.

### Carbon Dioxide Emissions

In 2010/11 Financial Year **cesar** investigated its carbon footprint for the first time to establish a benchmark for ongoing monitoring and improvement. **cesar**'s annual carbon emissions were approximately 43 tonnes\* (equivalent to usage of approximately 11 average cars) and 5.5 tonnes per employee. Putting this in perspective, the overall emissions of Small to Medium Businesses in Victoria in 2009 was approximately 36.1 million tonnes. Also, Victorian businesses with 0-19 employees had an average emissions rate per person of approximately 16.3 tonnes (Carbon Down, 2011).

It is clear that by itself **cesar** has comparatively very little impact on the bigger carbon emissions picture. However, as the company grows it can be expected that carbon emissions will also. With conscientious management, the rate at which carbon emissions increase can be controlled.

**cesar** pty ltd  
June 2010 - July 2011  
(43 tonnes Co2 emissions)



Company vehicles present the largest component of the carbon footprint. Much of **cesar**'s work involves "field trips", so this result is not surprising. Carbon reduction in this area is challenging given that 4WD vehicles are essential to service delivery. At this stage, staff members carefully manage usage by planning ahead and staying overnight at locations where suitable. There may be opportunities in the future to more significantly address this area e.g. choice of car purchase.

There is a range of initiatives underway to help manage **cesar**'s impact. See the "Actions" section of this document.

- Not included in this 2010-11 FY carbon footprint analysis: laboratory waste & electricity; chemical/field related waste; remote work e.g. staff member working from home; embodied carbon in products **cesar** purchases.

## Waste

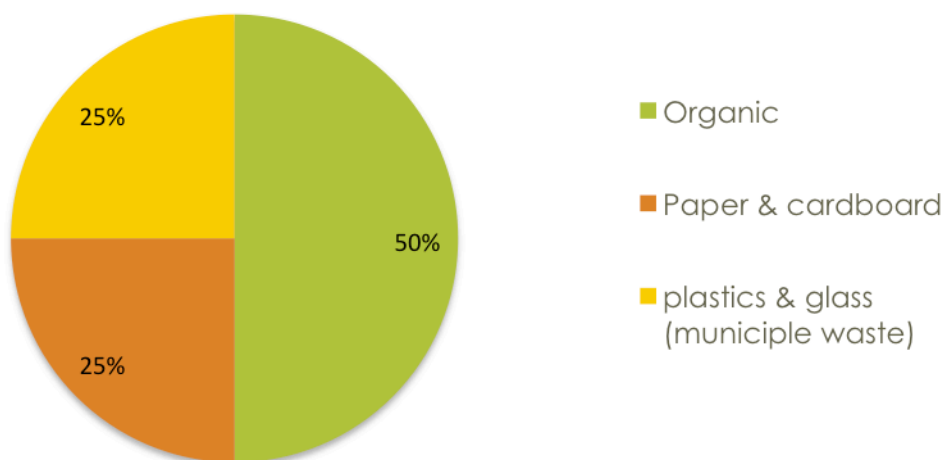
In the 2011/12 year waste has been a catalyst for sustainability efforts in **cesar** and has proven to be a great staff engagement tool. While the smallest component of the carbon footprint is the office waste, it is an area where immediate action can be taken. It is also recognised that along with carbon emissions managing waste is about:

- reducing demand for landfill space;
- saving resources and energy that are embodied in the things we consume;
- reducing pollution that is caused throughout the lifecycle of products.

An office waste audit was undertaken in December 2011 to develop a benchmark and identify areas for change. Over a period of one week all office waste was collected and audited to help provide annual estimates for the 2011/12 financial year.

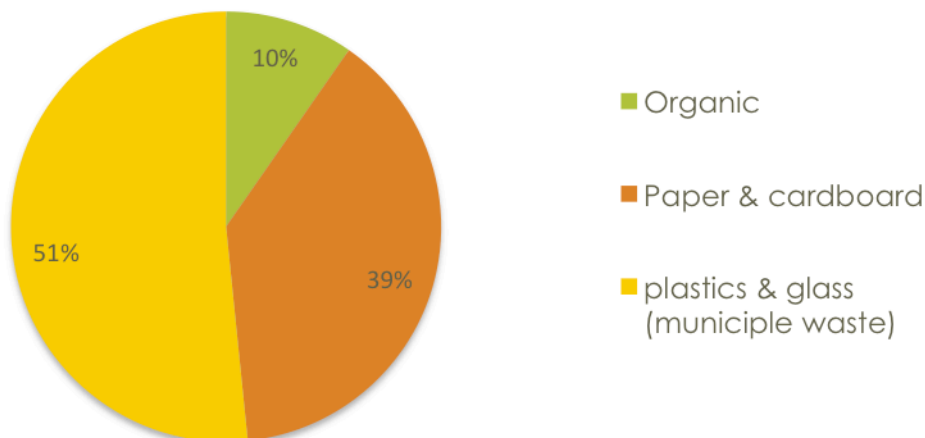
Note: laboratory and field waste is not included in this audit, but is something to consider for the future.

### landfill Co2-e (202kg annually)



From a carbon emissions perspective organic waste is the largest concern contributing 50% of overall emissions. An office compost bin has now been implemented to capture all organic waste, which will reduce the carbon emissions normally associated with landfill breakdown. Also as a result of this initiative staff now have access to chemical free fertilisers for their garden and a number of staff have purchased compost bins for their own homes.

### landfill in volume (2348 Litres annually)



Overall **cesar**'s office produces an estimated 2348 litres of waste annually, which is equivalent to approximately 10 large green wheelie bins. In addition there is approximately 2120 litres worth of products that were recycled and did not go to landfill.



*(One weeks worth of landfill waste, December 2011)*

In particular it was noted during the waste audit that 19 coffee pods were present. Each plastic pod would make one coffee using the office's electronic coffee machine. After discussions with **cesar** staff this was deemed unnecessary waste, and a new machine was purchased that did not require "pods". The new machine ("presso") is non-electronic, using "human power" to push boiled water through the coffee grounds, helping to reduce electricity usage as well. Furthermore, there is now more flexibility to purchase fair trade and rainforest alliance coffee grounds.



*(One weeks worth of coffee pods)*

Takeaway food packaging was noticeable during the waste audit. To investigate further a takeaway waste audit was undertaken in April 2012. For one-month staff members were asked to dispose of their takeaway packaging into an allocated bin. To address the disposable coffee cup usage, **cesar** purchased a set of reusable coffee cups. Staff and visitors are encouraged to use these if they don't already have their own. The next step with the takeaway waste audit is to engage staff and understand if it is a concern and where further efforts can be reasonably made.



Actions				
Below is a list of initiatives and processes that staff members are currently undertaking to help <b>cesar</b> manage its impact.				
<b>Leadership</b>	Reducing demand on earth's resources	Reducing <b>cesar's</b> emissions	Offsetting emissions	Staff engagement
Green Team initiated - internal group of people who lead our environmental sustainability, devise strategies and implement actions				✓
<b>Transport</b>				
Skype and conference calling facilities to reduce travel for meetings		✓		
Supporting working from home arrangements		✓		
Encourage public transport commuting e.g. staff functions		✓		✓
Business bike for staff errands and commuting between locations		✓		✓
Reduce work kms where possible e.g. staying overnight, planning ahead		✓		
Offset business flights through airline programs			✓	
<b>Office supplies</b>				
Shared stationery in office	✓			✓
Encouraging a paper free office culture	✓			✓
<i>Providing large screens for easy document reading</i> <i>Double sided printing &amp; scrap paper supply</i> <i>Client reports provided electronically</i>				
Generic group wide business cards	✓			
Reusing old branded stationery	✓			
<b>Purchasing</b>				
Majority of stationary purchased from Eco Office Supplies	✓			
Recycled or bamboo paper reams	✓			
Printing supplier – veg based inks and recycled stock	✓			
Compostable plastic for laboratory supplies where possible		✓		
<b>Energy</b>				
All electronics (where possible) switched off every night & weekends		✓		✓
All lights switched off at night & weekends		✓		✓
<b>Waste</b>				
6 month waste strategy implemented Feb 2012	✓	✓		✓
Office compost initiated April 2012		✓		✓
Replaced coffee machine – no longer use "pods" in April 2012. Also uses less energy.	✓	✓		✓
Recycling paper, cardboard, bottles etc and improve bin signage		✓		✓
Communal reusable takeaway cups	✓	✓		✓
Rechargeable batteries used for field & office equipment	✓	✓		✓
Reuse and maintain laboratory supplies e.g. pitfalls, vials	✓			
<b>Office environment</b>				
Plants to help naturally clean air		✓		✓