



# The SASI Clean Guide to Preserve our Planet...

The second section of the SASI Clean Guidelines and key goal of SASI Cleaning in Early Childhood is to Preserve our Planet using less resources and creating less waste and pollutants.

The planet we live on is clearly in trouble. It's easy to feel as though issues such as Global Warming, de-forestation and species extinction are too big for us to do anything about as individuals.

But when we accept that the simple actions we take as individuals are creating and adding to the problem, then we realise that it's our simple actions that will be part of the solution.

The products we buy and the way we use them all contribute to the impact on the environment, from the moment the materials are harvested, through the manufacturing, packaging and distribution process, and right up to the moment you wash the last drop down the drain with the dishwasher.

At each stage of a cleaning products 'life', natural resources are being **depleted**, and pollution and waste are being '**dumped**' in return.



This section lists some of the environmental problems that are caused by cleaning then suggests simple solutions for Choosing Products and Using Practices that can help to lighten our **ecological 'footprint'**.

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## 6. Problem



Planet

### Preserve natural resources:

Loss of natural habitat resulting in:

- species extinction
- lack of bio-diversity

Depleting resources:

- non-renewable materials
- Fossil fuels (oil)\*
- water

**\*NOTE:** Although oil and coal will one day run out, the real cost to the planet lies in the **energy** it takes to obtain it and convert it, and the **pollution** and **Co<sup>2</sup>** gases that result from this process.

## Cause

Which aspects of cleaning products and practices could be depleting resources?

✘ **Palm oil** is the base material used in many detergents, but Indonesian forests are now being destroyed to plant palm plantations. This is resulting in severe loss of habitat for the endangered orang-utans.<sup>1</sup>

✘ **Over-using products** costs the planet as well as your back-pocket. Every product uses up natural resources throughout the process of harvesting, production and cleaning:

✘ **Water** is used heavily in all production processes, including cleaning and cooling and even the production of energy that drives the factory.

✘ **Fossil fuels** (oil\*) is the base material for many cleaning products, equipment, tools, garbage bags and packaging.

✘ **Energy** for products, equipment, tools, packaging, labels etc comes from a finite supply of **coal and gas\*** (in Victoria).

✘ **Transportation** of raw materials and finished products, sourced from different areas of the world and country, requires fuel and energy to drive the ships, trucks, planes and our cars. Many products have been world travellers by the time they reach your kitchen sink.

✘ **Packaging beads** made from polystyrene (fossil fuels) are used once then thrown away.

✘ **Irreplaceable natural resources** such as old growth forests are being wood chipped to make paper products, including paper towel and toilet paper.

✘ **Non-renewable** materials are used in many cleaning products. For example, minerals such as bicarbonate of soda, are produced by mining marble and smeltered with brine.

✘ It's good to remember that *everything* we do has a cost to the planet. The most non-hazardous substance must still be harvested, manufactured, packaged and distributed.

## Solution

- ✓ **Choose safer products and**
- ✓ **Use safer practices**

✓ Choose detergents that use coconut oil or other vegetable oils as a base.

- ✓ **Reduce the volume of products used:**
  - ✓ **Measure accurately** according to directions or reduce by 1/3.
  - ✓ **Dispense chemicals** carefully using measuring jugs, funnels, pumps, container taps or pump dispensers.
  - ✓ **Water is a cleaning agent** – allow it to 'dwell' on the surface a while to soften dirt so that it can be easily removed without lots of product.
  - ✓ **Spraying product** onto a damp cloth instead of directly onto the surface will require a lot less.

- ✓ **Buy locally made** products, with up to 80% locally made content if possible.
- ✓ **Buy** products as **concentrates** that are designed to be diluted in water. A product that is diluted 1:100 with water requires 99 times less transportation than one that is bought ready to use.

✓ **Packaging beads** can be made from potato starch or recycled newspaper.

✓ **Recycled paper towel:** look for high Post Consumer Waste content (PCW), and non-bleached or Processed Chlorine Free (PFC);

**Minimise the use of non-renewables by:**

- ✓ **'wiping with just water'** (or soapy water) first to remove the loose dirt,
- ✓ **'soak to soften'** stubborn dirt to make it easier to lift and remove.
- ✓ **'add to the bad'** - now you can target the stains or stuck-on spots with bicarb or creamy cleanser, instead of covering the surface.

## 7. Problem



Planet

### Reduce pollution and waste:

Co<sub>2</sub> gasses in the atmosphere, (global warming)

Pollution in the:

- air,
- soil and
- water

Waste from:

- packaging
- disposable items
- consumables

**\*NOTE:** There is no regulation against using washable cloths on nappy change mats but the amount of disinfectant required to soak them before washing may counter-act other environmental benefits.



Most Councils recycle this type of plastic. Check the bottom of the bottle.

## Cause

Which aspects of cleaning products and practices could be depleting resources?

✘ In Victoria, the largest producer of Co<sub>2</sub> gasses (82%) comes from burning coal, gas and oil to produce **energy**<sup>2</sup> and is a major contributor to air pollution.

✘ **Energy** is required to:

- ✘ **Produce heat** for hot water; electric driers, washing machines and dishwashers.
- ✘ **Power electric** driers, washing machines, dishwashers and vacuum cleaners.
- ✘ **Manufacture** cleaning products, disposable items and packaging.

✘ **Manufacturing** cleaning products, tools, equipment and packaging requires **energy** and creates pollution. This problem is increased by the enormous production of:

- ✘ **Disposable items** that can be used only once then must be thrown away and replaced. Includes: surgical gloves; paper towel; nappy wipes; nappies; surface wipes; garbage bags and bin liners.
- ✘ **Consumable items** that must be replaced regularly such as: thin cloths and sponges; cleaning solutions and cheaply made equipment such as mops or buckets.

✘ **Distribution** of cleaning products burns fossil fuels, creating carbon emissions – another big source of Co<sub>2</sub> gasses.

✘ **Packaging waste fills landfill**, but it is estimated that up to 99% of the environmental cost happens while **manufacturing** the packaging.<sup>3</sup>

✘ It can take 450 years for some plastic bottles to break down.<sup>4</sup>

✘ **Incinerated** plastic waste releases Co<sub>2</sub> gasses and other toxic pollutants such as dioxins into the atmosphere.

✘ **Non-biodegradable** substances (that do not easily breakdown) build up in soil and river sediment. This is an even bigger problem if the substance is toxic: ie, bio-accumulative substances or heavy metals. See page 8.

## Solution

- ✓ **Choose safer products and**
- ✓ **Use safer practices**

✓ **Hot water** does not increase the ability of detergent to clean, but if the risk of spreading infection is high, heat can kill germs if the item is immersed in water over 70°C for more than 3 minutes.

✓ **Hang laundry** outside to dry whenever possible. UV is a natural disinfectant.

✓ **Sweep** instead of vacuum if possible.

✓ **Ensure** washing machines and dishwashers are full before using.

✓ **Reusable cloths** can be used for cleaning low infection-risk surfaces.\*

✓ **Re-use garbage bags** if not soiled.

✓ **Quality cloths** are generally more effective and much more durable than thin cloths or sponges.

✓ **Quality equipment** is often longer lasting and cost effective long-term.

✓ **Microfibre equipment** also reduces the use of surface cleaners and can be washed and re-used many times over - if it is high quality.

✓ **Choose a multi-purpose** product that is designed for many different purposes, such as surface cleaning detergents.

✓ **Buy in bulk containers** that are at least 5ltrs in size, and decant into smaller dispensers for daily use. Dispensers can be washed and re-used many times.

✓ **Buy products** in containers that can be **recycled** (ie, with a 2 on the base)

✓ **Install signs and bins** to make recycling empty cleaning products easier.

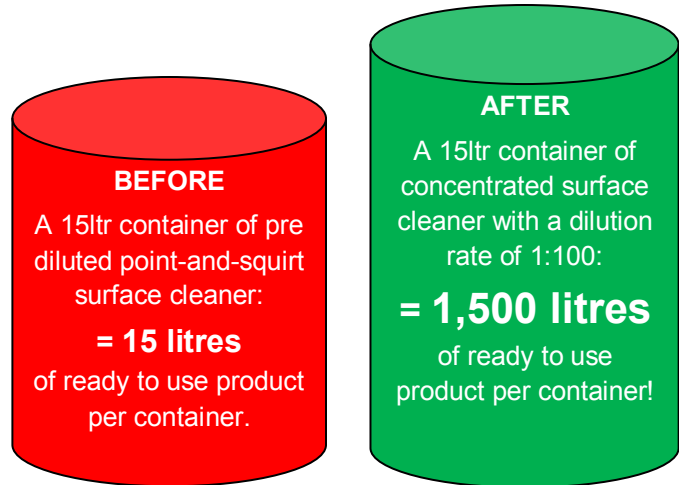
✓ **Buy garbage bags** and packaging made from recycled materials.

✓ **Reuse** items such as buckets collected from delicatessens.

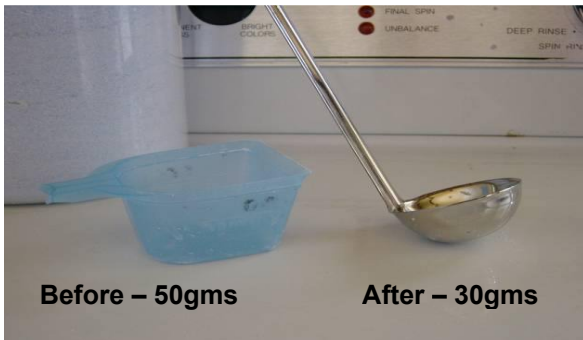
✓ Choose products that claim that the **Whole Product** (not just the surfactant) is **Readily Biodegradable** according to **AS4351**, to ensure it will breakdown in the environment within 21 days.

**Some simple sustainable actions:**

- Buying in bulk and in concentrate form (able to be diluted) can significantly reduce transport and packaging.



- **Using 1/3 less laundry detergent** by simply changing the size of the laundry powder scoop is another strategy for reducing energy and resources.



This experiment was conducted at Lady Gowrie Child Centre Melbourne, where an average of 6 loads of washing were done every day, 5 days a week, 50 weeks per year.

They achieved a potential saving of **30 kilos** of detergent a year! Staff reported there was no difference in the quality using 1/3 less detergent.

**Before:**

50 gram cup of detergent =  
300gms per day,  
1.5kgs per week and  
**75 kilos** of detergent per year.

**After:**

30 gram ladle of detergent =  
180gms per day,  
900gms per week and  
**45 kilos** of detergent per year.

**References:**

- 1 Green Peace: Palm oil expansion Report, retrieved from:  
<http://www.greenpeace.org/raw/content/international/press/reports/palmoil-expansion.pdf>
- 2 <http://www.climatechange.vic.gov.au/greenhouse/wcmn302.nsf/childdocs/-CAA82826A6EDFBB3CA25702D00155C68?open>
- 3 Tellus Institute for Life Cycle Environmental Assessment: - Carrying The Energy Future
- 4 [http://www.environment-agency.gov.uk/commodata/acrobat/waste\\_975630.pdf](http://www.environment-agency.gov.uk/commodata/acrobat/waste_975630.pdf)