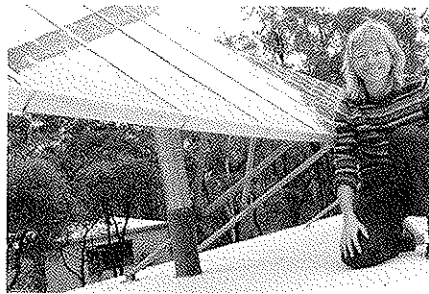


# SUSTAINABILITY

## YOUR CARBON FOOTPRINT => MEASURE => POLICY => REDUCE => SWITCH => OFF-SET => COMMUNICATE =>

Fleur Crowe

The International Panel on Climate Change (IPCC) report, *Summary for Policy Makers* (2007) described the average global warming over the past few decades as unequivocal; further stating global greenhouse gas (GHG) emissions must peak by 2015 at 450 parts per million (ppm) to limit average global warming to a rise of only 2°C. Currently the GHG are around 430 ppm and rising. Sir David King, in his book *The Hot Topic*, felt that this target looks increasingly out of range, whereas 450 – 550 ppm with its associated rise of between 2-5°C seems more likely, referring to this consequence as alarming.



A domestic solar power array. Ph: F. Crowe

or 42 drums of CO<sub>2</sub> each day!

Belching by cows (methane) and other agricultural land uses account for a further 22% of Australia's emissions. While suggesting Australians should become vegetarian is fraught with opposition, it is necessary to understand that your individual level of red meat consumption is a part of the problem. Methane as a GHG is 20 times more

In the south-west of WA, a 2°C increase in temperature and our current 25% reduction in rainfall will result in the likely loss of 66% of *Dryandra* and a large number of *Acacia* species. Furthermore, a shift in climate belts associated with rising temperatures will cause a shift in budburst, shorter growing seasons, earlier harvest dates, lower crop quality and changes in soil temperatures. The northern wheatbelt is likely to lose much economic viability while the south will be dramatically reduced - this in an industry worth more than \$2 billion. Changes in the climate belts will result in an increase in weed species across all of WA, for example gamba grass is just starting to make its presence known in the Kimberley.

As a *Land for Wildlifer* what can you do about this?

### MEASURE – understand where your emissions come from

Sadly 50% of Australia's emissions of CO<sub>2</sub> come from our past choice with respect to energy production options, namely coal, natural gas and oil. Sir David King refers to these as the three wicked witches of the climate change story. During the past 15 years, residential energy consumption per capita has increased by 15% (e.g. dishwashers, air conditioners, computers, televisions). You may think you're paying more per unit with every bi-monthly bill, but across WA, energy tariffs per unit have not increased in over 15 years - you're simply using more. Average daily electricity use of 21 kWhrs a day (21 units) for regional homes, equates to around 8,400 litres

harmful in its ability to warm the atmosphere, but has a plus side that it is the shortest lived of the GHGs. Therefore immediate reduction in cattle production would have a significant reduction in Australia's GHG emissions. Recent CSIRO research indicated removal of Victoria's cattle industry could reduce that State's emissions by one third by 2020.

In dread of alienating readers even further I'll raise the issue of your choice of vehicle! Transportation accounts for 14% of total emissions and it simply makes no sense to own or run a vehicle with efficiency above 7 litres/100 km, be that a diesel, gas or petrol vehicle. Whether or not you support the science of climate change, fuel costs dictate a significant personal financial benefit from selecting a more energy-efficient vehicle. In Australia the average vehicle trip is less than 5 km, and many of these trips could easily be replaced by the use of a bicycle or walking.

You can choose to measure your carbon footprint at [www.acfonline.org.au/consumptionatlas](http://www.acfonline.org.au/consumptionatlas). or

[www.acfonline.org.au/ecocalculator](http://www.acfonline.org.au/ecocalculator).

### POLICY – commit to not emit

As individuals we need to commit to our own personal reduction targets, along with business and government. McKinsey Consulting proved a significant reduction in Australian GHG emissions (of 30 % below 1990 levels by 2020 and 60 % by 2030) is achievable without major technological breakthroughs or lifestyle changes. Reducing emissions is affordable, with an average annual gross cost of approximately A\$290 per household... about the cost of a latte per week.

You can make your commitment to not emit at [www.whoonearthcares.com](http://www.whoonearthcares.com)

continued from page 10

# SUSTAINABILITY

## Your carbon footprint

### REDUCE – your emissions

There are many simple and small steps you can do to make a change. To give you an idea I've listed a few below:

- Switch to compact fluorescent or LED lighting. And if not using the room turn the lights off.
- Turn all your appliances off standby power, e.g. computer and television. The average large TV uses \$200 per year of energy in standby, if you have a plasma screen it's even more. If you must have a big TV, buy LCD as this unit uses less energy.
- Buy electrical appliances that use the least amount of energy in comparison to their size. Consider a chest fridge over an upright. As we all remember from school warm air rises and cold air falls... or in the case of an upright fridge the cold air falls out whenever you open the door and you need to use more energy to replace this loss.
- Turn the bar fridge off and only use when you have a party.
- Install a solar or heat pump hot-water system to replace your fossil fuel (electricity or gas) unit.
- Insulate your home, seal drafts, use blinds and curtains for insulation and consider double glazing windows.
- If building, face your house north on an east/west axis to maximise solar design. You will need to include thermal mass to assist with winter warming and a solar pergola for summer cooling.
- Consider installing a solar power system to assist in running your pool or if you don't have one, your household. But only do this after you ensure your hot-water system is not from a fossil fuel source.
- Convert your current vehicle to LPG. Lower emissions and lower price per litre, plus the government currently provides a \$3,000 rebate to convert your domestic vehicle.
- Use a bicycle for short trips. These days, bikes are very comfortable and you can get a version that folds. Folding bikes are allowed on trains at any time of day and if in a bike bag you can take them on a bus.
- Consider a laptop over a desktop computer. But as a minimum, ensure you have a LCD flat screen and you turn the computer off when it's not in use.
- Eat one less red meat meal a week. Better still, eat roo! Kangaroos don't fart, so no methane.
- Upgrade your airconditioning to the most efficient and if you're not home – turn it off! Keep doors closed to keep the cool air in. A higher setting uses less energy.
- Avoid flying. A single engine on a Boeing 747 during takeoff is equal to running a 20MW power station.
- Upgrade your vehicle to an energy efficient type of less than seven litres per 100 kms. And why not consider

car pooling?

- Limit your consumption of 'stuff'. Everything we do and consume produces emissions.

To learn more visit

[www.acfonline.org.au/greenhome](http://www.acfonline.org.au/greenhome)

### SWITCH – to 100% GreenPower

Western Australia has abundant opportunities for renewable energy, such as wind, solar photovoltaic, solar-thermal, geothermal or wave, with the last three options infinitely capable of providing base load energy (24/7). Choosing to buy 100% of your energy from an accredited GreenPower scheme ensures your electricity dollar is invested in renewable energy projects.

To switch visit [www.greenelectricitywatch.org.au](http://www.greenelectricitywatch.org.au)

### OFFSET - the rest and go carbon neutral

What you can't reduce or switch can be offset by purchasing carbon offsets from accredited providers. Generally these providers will plant trees on your behalf to offset the carbon you have consumed. You can calculate your personal carbon footprint for your home, office, vehicle and flights and pay to the provider an amount in trees to offset your carbon impact annually.

Offset here [www.acfonline.org.au/carbonneutral](http://www.acfonline.org.au/carbonneutral)

### COMMUNICATE – spread the word

We all need to communicate these messages to all Australians. To get your community involved you can request an Al Gore Climate Project presentation at [www.acfonline.org.au/requestpresenter](http://www.acfonline.org.au/requestpresenter). Consider joining your local Climate Action Group or starting your own. For tips visit [www.acfonline.org.au/communityclimatekit](http://www.acfonline.org.au/communityclimatekit).

We must urge our leaders to pass legislation and our organisations and individuals to voluntarily adopt actions that will reduce our global emissions and increase the use of renewable energy. Demand management technology and energy efficiency appliances.

As David Suzuki said: "If you don't take your car to work for one day it's a drop in the bucket. But if 400,000 people leave their car at home for one day a week, that's huge. You as an insignificant person are part of a much bigger movement."

Why this work is important to me, is succinctly stated in the words of Professor Ian Lowe: "A sustainable future is clearly a better future. Working for it is our moral duty to the countless millions of other species that we share this planet with ... and the future generations for whom we hold it in trust." (Reference list available – Ed.)

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