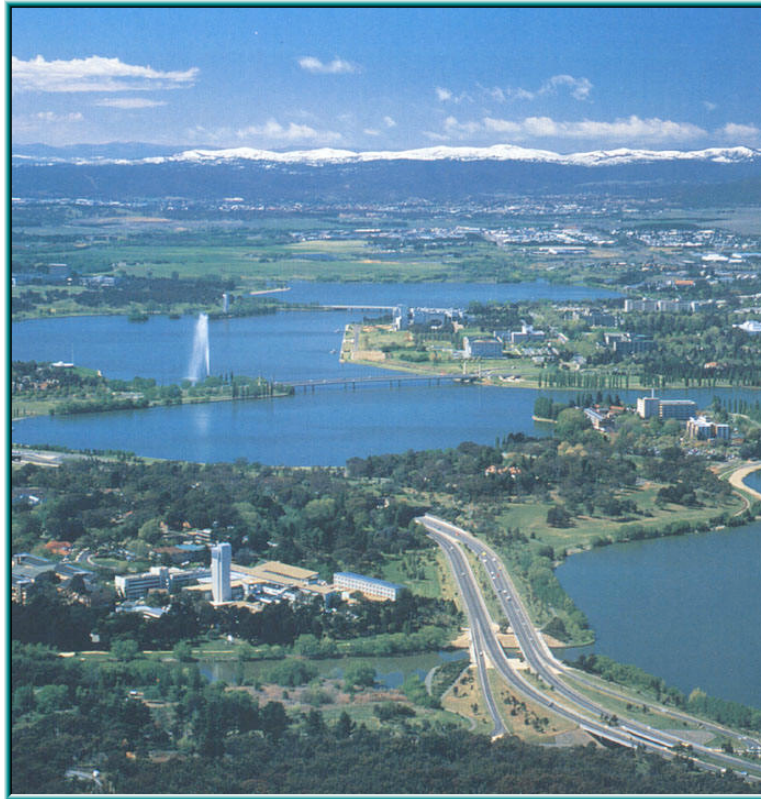


ADDRESSING CLIMATE CHANGE IN THE AUSTRALIAN CAPITAL TERRITORY



STRATEGIES FOR ACHIEVABLE REDUCTIONS IN GREENHOUSE GAS EMISSIONS

Dr. Amelie Barry of Permaculture ACT

Amelie Barry

Ph.D. (Comp. Sci.) Ph.D. (Elec. Eng.)

CCNP MCSE CNA CPD

Mobile Phone 0404 832 988

Email Address: amelie.barry@gmail.com

Effective Strategies for Greenhouse Gas Emission Reductions in the ACT

The ACT Climate Change Strategy

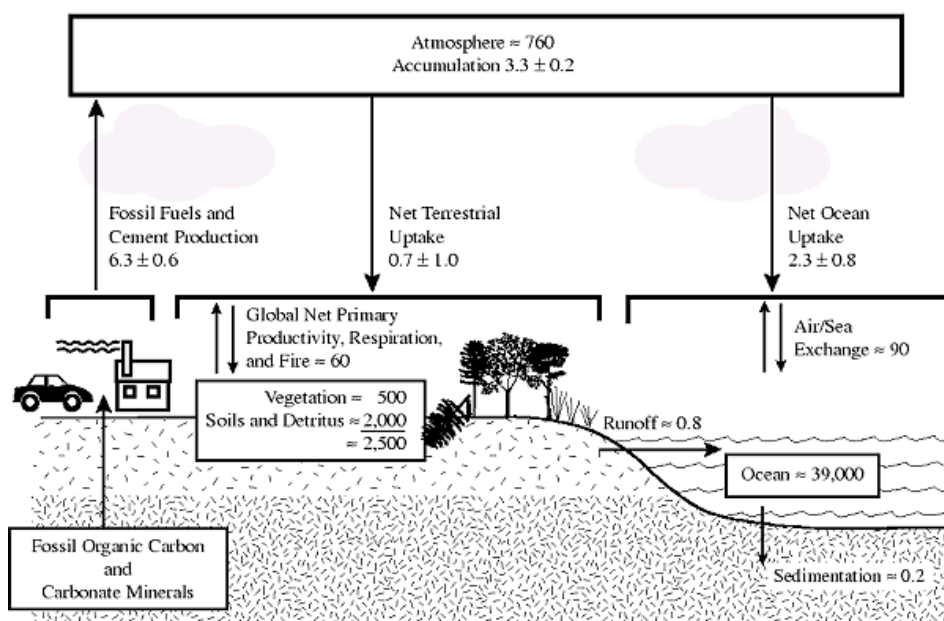
“Weathering the Change” The ACT Climate Change Strategy 2007-2005 document outlines the ACT’s response for longer term reduction targets to reduce Greenhouse Gas Emissions (GGE). Whilst the issues of achievable reduction targets have been discussed in numerous public policy statements the real issues of specific means of addressing how to achieve those targets hasn’t been as thoroughly explored. In this submission we acknowledge that there is a considerable amount of expertise that has looked at the issue and explored what the results are likely to be if we do not act on a local level as well as a global level. Following are suggestions and a framework for beginning to act on the issues before us with immediate and near term strategies for individuals, local businesses, and the ACT government to utilise and implement.

Current Efforts in Addressing Greenhouse Gas Emissions and Climate Change in the ACT

Local efforts to raise awareness and implement change on a local level involve programs such as HEAT (Home Energy Advice Team), WEST (Water and Energy Saving in the Territory), rebates for water tanks, and a feed-in tariff for “Green Power” producers. These programs and others are the starting point, however, programs need to be accessible to all levels of the socio-economic spectrum. Furthermore by eliminating the economic limitations ALL people will be able to participate and engage in a healthier lifestyle whilst reducing their Greenhouse Gas Emissions. There are several little cost programs that can be implemented Territory wide that have not been addressed. The greatest efforts in emission reduction targets can be met within days or weeks of implementation of several low cost programs that will be of benefit to all in the ACT. “Sometimes the simplest ideas are the best ideas” and achievable targets for individuals, households, businesses, and the ACT government can be met quite easily. The continual effort to look at strategies that are complicated, cost prohibitive, and lack the ability for broad implementation are why many communities find difficulty in overcoming the inertia in dealing with reducing Greenhouse Gas Emissions.

Strategic Framework for Addressing Climate Change in the ACT

The ACT climate change strategy does not clearly outline the possibilities for individuals and businesses to act in conjunction with the the ACT government to reduce GHG emissions.



Many ACT households may take small steps to reduce their ecological footprint but probably not implemented many steps as they feel they are cost prohibitive or there is the feeling that they are “time poor”. Many ACT businesses think if climate change as just another expense that they will have to face. Both groups should have the opportunity to have access to lost cost and effective strategies that will help to reduce their ecological footprint and in turn that will help the ACT achieve it’s GHG emissions reduction target.

Carbon sequestration, reduction of natural resource use, and reusing the resources we have are all achievable and low cost means of achieving our goals. Left is a figure from the Intergovernmental Panel on Climate Change that demonstrates the global carbon cycle.

Currently many towns and cities around the world have a strategic framework from which they are building their plans to deal with climate change. The framework for the ACT to address climate change and reduce it's GHG emissions should contain how the government, individuals and businesses should be acting towards reducing their GHG emissions and how they will mitigate the already expected changes to our climate.

Any strategic framework should look at reducing our reliance on food and goods shipped to the ACT. Furthermore how we utilise our local resources will be critical to how individuals, businesses, and the government "weather the change". Resources within the ACT can be utilised more effectively if they are addressed as part of the strategic framework. As the ACT has very few natural resources that it exports the framework we build for effectively addressing climate change will have to look at management of the inputs into the ACT that we currently receive and the what will be available as climate change takes hold globally. Unfortunately we are more susceptible than other capital cities due to our geographic location when it comes to the possible cost prohibitions in having food and other resources delivered to the ACT.

One of the most glaring omissions from most strategic frameworks is how we deal with our rubbish. The three main sources of greenhouse gas emissions from homes are electricity use, heating and waste. Emissions from electricity generation occur at the power plants that supply our electricity. Greenhouse gas emissions associated with home electricity use are about twice those associated with heating. The greenhouse gases associated with waste from our homes occur at the landfill that receives our rubbish.

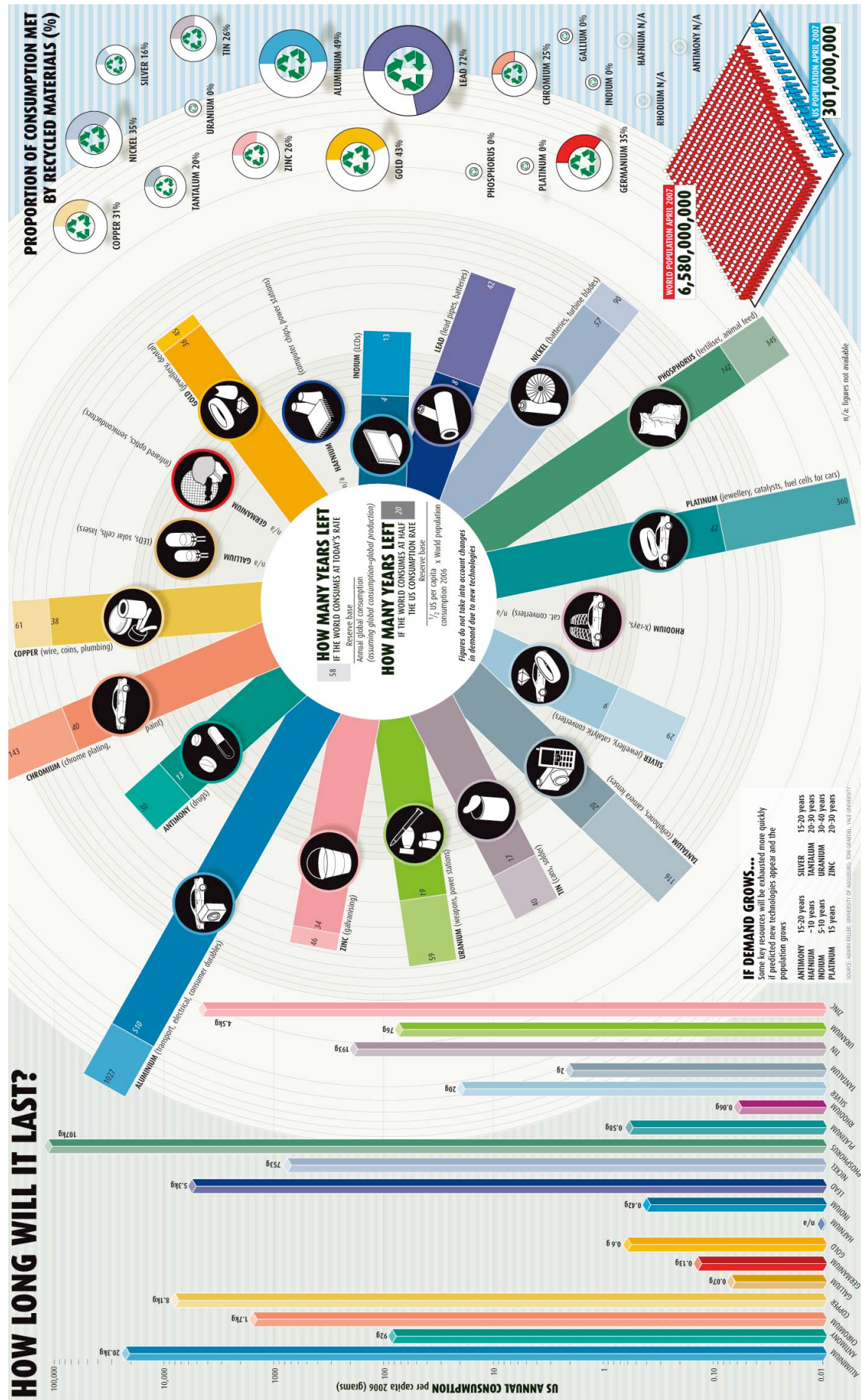
Most people don't realize that the trash they throw away leads to emissions of greenhouse gases. Each kilo of rubbish we throw away will emit approximately 0.94 kilos of carbon dioxide equivalent in the form of methane, and the average household in the ACT throws away over 851.24 kilos of waste per year. For every household in the ACT, about 800 kilos of CO₂ equivalent comes from the rubbish we throw out every year.

As rubbish decomposes in landfills, it produces landfill gas (LFG), which consists of about 50% methane, the primary component of natural gas, and about 50% CO₂. LFG is produced during the natural process of bacterial decomposition of organic material (like leftover food, paper, and grass clippings) contained in municipal solid waste landfills.

In the ACT's most recent Kerbside Waste Audit of 2007 a shocking 48.5% of all rubbish was compostable!!! That is 412.85 kilos of compostable food and other items being thrown away each year per household in the ACT. The best way for the ACT to reduce it's GHG emissions would be to begin an aggressive campaign of reducing food waste going to landfill and composting those products. By then sequestering carbon on the soil in forms of vegetation the ACT will significantly reduce it's GHG emissions and improve the soil fertility of the ACT whilst increasing biodiversity.

Other strategies for the ACT to reduce it's GHG emissions would be encourage greater reliance on individuals and businesses using alternate means of transportation. Additionally businesses that significantly reduced their waste going to landfill e.g. restaurants and food service venues would be helping to achieve their potential targets within a few short years.

<http://www.newscientist.com/data/images/archive/2605/26051202.jpg>



Responsible Stewardship and Mitigating Economic Impact

Sustainability is the current buzzword that is being used by individuals, community groups and governments as a “goal” that we have to achieve. This, however, implies that it is an achievable goal within a certain timeframe. The reality is that sustainability is not a goal that we can hope to achieve in any specific time frame because in order for us to do so we would have to all be living as though this were the 19th century. In measurable terms we can hope to achieve responsible stewardship of the ACT’s resources.

The economic impact of climate change will be greater in the ACT than in other Australian capital cities because of our reliance on food being shipped here from major ports in Sydney and other cities. As the cost of transport will at some point become prohibitive for most. Additionally our reliance on non-seasonal fruits and vegetables has lead us to a life-style that is not ecologically responsible.

Ways to mitigate the economic impact of climate change on the ACT and it’s citizens involves a three pronged strategy - encouraging local food sources, managing water resources, and finding alternatives to energy and other inputs we receive into our “system”. Local businesses will struggle if they do not start planning for climate change now. In addition the ACT will not be able to meet it’s reduction targets without the help of all local businesses.

Responsible Stewardship and Near Term Strategies for ACTION

The call to “ACTION” means the groundwork for longer term strategies must be laid now. Furthermore those strategies which can be implemented in the near term should be. Medium term strategies can be implemented after the review of the efficacy of near term strategies.

Managing local resources may be as simple as setting more realistic water targets, encouraging walking or cycling to the local shops or growing more local food. More complex issues such as businesses that are reliant on overseas produced goods will have to determine whether goods can be sourced locally or within Australia. The more reliant we become on overseas inputs in the ACT the likelier it is that we will not achieve our GHG emission reduction targets. Following is a list of twenty things that can be done in the near term to mitigate the ACT’s ecological footprint and are near term strategies for ACTION.

20 Things That Can Be Done NOW to Mitigate the ACT’s Ecological Footprint

The ACT Government can have a measurable impact on the ACT’s ecological footprint of it’s individuals and businesses by implementing the following strategies:

1. Collect “Green Waste” as part of the local rubbish collection.
 2. Convert the “Green Waste” to compost soil.
 3. Redistribute the newly formed compost soil to all ACT residents.
 4. Encourage local food sources by allowing fruits and vegetables to be grown on nature strips.
 5. Encourage and allow community gardens in unused urban open spaces.
 6. Mandate that all residences with incomes above a certain threshold have energy use devices installed to report to the occupants what their energy use is in real time.
 7. Encourage all homes to install energy use devices with rebates.
 8. Work with ACTEW to develop a viable water program whereby households that use too much for the number of occupants pay a surcharge and those that use less than the average are given a rebate.
 9. Facilitate community programs to encourage passive exercise via gardening and cycling - two things that will have the greatest impact immediately on our ecological footprint and GHG emissions.
 10. Encourage businesses to use locally grown and produced products by facilitating a “farm to plate” relationship.
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11. Have more ecologically sustainable community events.
12. Encourage walking, cycling, or public transport use to community events such as to the Multi-cultural Festival, Floriade, Round-Town events, etc. with discount vouchers, free bike minding services or a locker service, etc.
13. Organise community events that specifically detail what individuals and businesses can do to lessen their GHG emissions and ecological footprint.
14. Offer rebates to businesses that install aerated tap mixers in restaurants and other high traffic washroom facilities.
15. Permit businesses to separate food waste from other waste so that it can be composted.
16. Work with businesses such as Greening Australia to encourage revegetation of the ACT.
17. Partially subsidise public transport for those who drive the most in the ACT and for public servants who frequently drive and park rather than utilise public transport.
18. Offer a greater number of buses during school drop off and pick up times to encourage parents to walk their children to school before riding to work and in the afternoon walking them home after taking the bus to pick them up.
19. Offer a larger scale of trials such as BERT (Bicycle CO₂ Emissions Reduction Trial) to a wider number of suburbs and individuals.
20. Offer rebates or credits for courier or delivery services in the ACT that use LPG or “green” means for their deliveries.



Local Food Production

Grey water usage

A typical house uses approximately 260,000 litres of water each year, of which 144,000 litres is for indoor use.

House of 2.2 people		Recycled
Toilet	32,000L	No
Bathroom (grey)	50,000L	Yes
Washing (grey)	39,000L	Yes
Cooking	23,000L	No
Outdoor	106,000L	N/A
Total	260,000L	

Water Use



Reduction of Landfill

Individuals and Households Growing Their Own Food

Individuals and households in the ACT can do a great deal to effectively reduce their GHG emissions by growing as much of their fruit and vegetables as possible. Digger's Club has clearly demonstrated that the average family of 4 can grow all of the fruit and vegetables it needs for a year in just 27 m² the size of an “average” Australian front yard. Up until the late 1950s many Canberrans would grow potatoes and other vegetables on their nature strips. A common theme during World War II was the “Victory Garden”. It is now time that Canberrans have their own “Victory Gardens” again in the fight against climate change.

Community Gardens Encouraging Locally Grown Food

Community gardens are different from allotment gardening (such as the ones operated by the Canberra Organic Growers Society run under the auspices of the ACT government). Community gardens are deliberately open and allow access to all members of the community. Furthermore allotment gardens are managed by the renters of each allotment whereas community gardens are managed by the community and are nurturing places for all members of the community to come and grow a little or a lot. To teach their skills or to learn new ones. Community gardens are deliberately inclusive rather than exclusive. Several councils in Sydney such as Marrickville have a successful community garden program and have successfully managed community gardens. Marrickville Council has produced a comprehensive manual that is accessible online and would be a good foundation for community gardens in the ACT.

The ACT Government should consider the following when producing a framework for dealing with climate change in the ACT:

1. Reallocation of Urban Space for Food Production
2. Farmer's Markets and Other Means of Consolidating Locally Grown Food
3. ACT Government Subsidies for Alternative Transport
4. BERT Program to Lower Income Households
5. Integration of Walking Programs
6. Cycling As A Means of Sustainable Transport
7. ACTion Bus Timetables and Scheduling
8. Energy Monitoring

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