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Climate Change - the last gasp of Smart Growth?

A paper prepared for "Recovering from Smart Growth"

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1. Background.

Smart Growth, in its many guises, has always been a policy in search of justification, or a solution in search of a problem.

In Post War England, the Town and Country Planning Act promoted Greenbelts to protect the green and pleasant land from despoliation from the expansion of new cities during the post-war boom.

Thomas Sowell argues that in the US it took root in the early seventies. It became popular following the impact of the Civil Rights Legislation, as '*Zero Growth*' – a means of pricing Blacks and Hispanics out of wealthy white enclaves in the US. It worked then, and still does, but was soon ruled "inappropriate" by the US Supreme Court. Of course *Zero Growth* had been dressed up as a response to the predictions of the *Club of Rome*.

Then it re-emerged as *Growth Management*, which would save "productive" rural land from urban growth. But there is no such thing as "productive" land because only people make land productive. That didn't work – and doesn't work now.

Then the urban intensification and public transport of *Smart Growth* would save us from the oil shocks. The shocks went away.

More recently *Smart Growth* claims to save us from our own foolishness. If left to ourselves we will live in suburbs which will cost us more, contaminate our lungs, waste our time, make us fat, spend too much on transport and infrastructure and generally fall into moral turpitude

and decline. Smart Growth will save us from all these sins and the salvationist¹ planners will deliver happiness and a ride on a train. The general public remains unimpressed if we judge the public by its actions rather than by the pronouncements of the planners.

Most recently the Smart Growth salvationists claim they can deliver us from global warming. They have assumed – as usual without bothering to collect any supportive evidence – that intensification, more public transport, urban growth limits, walkable cities, and all their favourite fads, will reduce our carbon footprints, lead us down the path to carbon neutrality, and consequently save the world.

These "carbon" driven policies are typically promoted under the rubric of "sustainable urban form".

The salvationists make these claims with such conviction that many on the sidelines assume they must know what they are talking about. You might think so too. You would be wrong.

2. The Two Favourite Targets.

2.1 Buildings – carbon footprints and consents.

The New Zealand Government (following other governments around the world) has floated a proposal that all buildings be assessed for their carbon footprint before issuing a building consent.

This is yet another half-baked scheme which will make housing even less affordable without delivering any measurable benefit. No one knows how to measure such a footprint with any reliability, let alone over the 100 year lifetime of a building. If New Zealand adopted nuclear energy next year, the future footprints would change dramatically. The error terms are so huge as to make the exercise meaningless. I shall return to this problem later.

Buildings are attractive targets for such nonsense, simply because "they are there".

2.2 Transport and "Sustainable Urban Form."

Private motor vehicles are also attractive targets.

¹ For a discussion of "Global Salvationism" see *Economics, Climate Change Issues and Global Salvationism*, By David Henderson. This text formed the basis for a talk given at the Political Economy Club, London, on 4 May 2005. Go to: http://www.staff.livjm.ac.uk/spsbpeis/David-Henderson.htm

Some speakers at a recent major transport conference in New Zealand – *Transport – the Next* 50 Years – fell into the carbon footprint trap. Although the dominant theme of this excellent conference was the development of transport infrastructure, a major "sub-theme" was the "obvious" connection between private vehicle use and anthropogenic global warming.² The promoters of "sustainable urban form" were in "climate change clover", and generally seized the opportunity to persuade us that they should be given the power to "design" "sustainable cities" with "compact urban form" behind *Metropolitan Urban Limits* so as to increase densities, stop people living in suburbs, force them out of their autos and onto buses and trains, or onto cycle tracks and footpaths.

They simply assumed these draconian interventions were self-evidently necessary as pathways to salvation from Global Warming. Smart Growth fans take it as read that suburban living sets us on the pathway to global warming hell.

They are wrong.

Transport analysts acknowledge that the modern private-vehicle fleet is more fuel-efficient in its overall operation than buses and trains. This is because the whole-of-day percentage loading of the private automobile is much superior to the whole-of-day percentage loading of the public transport fleet. The UK *Rail Safety and Standards Board* recently admitted that catching a diesel train is now twice as "polluting" as traveling by car for an average family.

No amount of social engineering by managing "urban form" can significantly change these whole-of-day loadings because the majority of vehicle trips in a modern city³ are for social and recreational activities rather than commuter trips, and commuter trips become less focused on the CBD by the day.

Consequently "getting people out of their cars and into buses and trains" does nothing to reduce the family "carbon footprint" and almost certainly makes it worse. More importantly, the New Zealand government's own climate change web page tells us that the private vehicle fleet accounts for only 8.5% of New Zealand's greenhouse gas emissions.⁴ Only a third of

² Recently renamed Climate Change – which means any major weather event is evidence of AGW.

³ At least in the modern new world cities that have developed mainly since the widespread use of the automobile. It may not be true for "older world" cities such as New York.

⁴ It is a common "dirty trick" for anti-car global warming alarmists to announce that transport accounts for about 40% of greenhouse gas emissions and then target the automobile for intervention. This is sleight of hand. The 40% figure relates to all transport including aircraft, (domestic and international), shipping, rail, long-distance trucking, private commercial fleets, public transport, and the private automobile fleet. I have seen the same trick pulled using US, UK and European statistics. These people have no shame.

those vehicles are in large urban centres. So manipulating urban form can impact on only something under 3% of New Zealand's total greenhouse gas emissions. And the impact goes in the wrong direction anyhow.

3. The Australian Report – Consuming Australia.

3.1. Automobile Emissions barely figure.

This application of Carbon Footprint alarmism to support Smart Growth theory has been further undermined by a recent Australian study, *Consuming Australia*⁵ by Sydney University's *Australian Conservation Foundation*, using data collected by the *Centre for Integrated Sustainability Analysis*. You cannot get a much more PC name than that – it combines conservation, sustainability and integration into one title! The title of the report is equally appropriate to these anthropomorphic times conveying – as it does – the idea that those dinkum Aussies represented by Mel Gibson, (Mad Max) and Russell Crowe⁶ (The Gladiator) are somehow chomping away at the map of Australia until it finally disappears.



Figure 1. Average household profile: Greenhouse gas emissions.

⁵ Go to: http://acfonline.org.au:80/uploads/res/res_atlas_main_findings.pdf

⁶ Actually a New Zealander – but we are accustomed to these "adoptions".

Anyhow, the Sydney researchers found that <u>total</u> transport activity – including private vehicle use, public transport and aircraft – accounts for only 10.5% of the carbon footprint of the average Australian family. This was the smallest slice of the carbon footprint "pie". (See the pie chart above.) Food accounted for over 28% of the footprint. Putting everyone on a diet would have a greater impact on the family's carbon footprint.

Now there's a new campaign for Weightwatchers - "Join up and Save the Planet!"

Governments wanting to take the carbon footprint of dwellings should note that "construction and renovations" account for only 11.8% of the family's carbon footprint – a bit more than transport, but much less than "other goods and services" at almost 30%.

The report bluntly concludes:

If every Australian household switched to renewable energy and stopped driving their cars tomorrow, total household emissions would decline by only about 18%.

So why do our social engineers focus on transport and construction which are such small slices of the carbon footprint pie?

Again, I suspect it's just because "they are there" – and, in particular, they are there to tax, inspect, and regulate.

3.2 Live where you like – Location Doesn't Matter!

This Australian study also examined the carbon footprints of families living in different states, different cities, and in different locations within cities. The researchers probably expected to come up with support for Smart Growth claims that high-density inner-city living will help save the planet while suburban living sends us down the pathway to toast.

Instead, they found that "place doesn't matter." Household income proved to be the major "carbon variable". Families with the smallest carbon footprints are on lower incomes and live on the outskirts of town. The carbon footprint "criminals" are on high incomes, and live in "vibrant downtown communities". Burning up all that midnight ethanol must pump out the CO₂.

The researchers had to declare that:

Despite the lower environmental impacts associated with less car use, inner city households outstrip the rest of Australia in every other aspect of consumption. ... the opportunities for relatively efficient compact living appear to be overwhelmed by the energy and water demands of modern urban living. In each state and territory, the centre of the capital city is the area with the highest environmental impacts, followed by the inner suburban areas. <u>Rural and regional areas tend to have noticeably lower levels</u> of consumption. (my emphasis)

There goes the Smart Growth neighbourhood!

4. The Goodall Report – Great News for Couch Potatoes!

Consuming Australia knocks out one of the props from under the argument that urban intensification is a cure for global warming by reporting that sprawling outer-suburban households have lower carbon footprints that those living in the centre of town.

And now a report by Chris Goodall,⁷ a UK Green Party Parliamentary candidate, and author of *How to Live a Low-Carbon Life*, has come up with the ultimate 'climate change heresy' – car-loving couch potatoes will help save the planet!

Goodall explains that:

Food production is now so energy-intensive that more carbon is emitted providing a person with enough calories to walk to the shops than a car would emit over the same distance. The climate could benefit if people avoided exercise, ate less and became couch potatoes.

Goodall finds that driving a typical UK car 5.0km adds about 1.0 kg of CO_2 to the atmosphere, based on Government figures. On the other hand, walking the same distance uses about 180 calories and would need about 100g of beef to replace those calories, resulting in 3.6kg of emissions, or four times as much as driving.

Hence, he concludes:

The troubling fact is that taking a lot of exercise and then eating a bit more food is not good for the global atmosphere. Eating less and driving to save energy would be better.

I'll say it's "troubling". All those Smart Growth planners demanding we walk everywhere, are hell-bent on destroying the planet! Someone should tell the ARC so they can throw out their destructive Growth Management plans for Auckland.

⁷ For the London Times report on this and other heresies go to: http://www.timesonline.co.uk/tol/news/uk/science/article2195538.ece

But don't hold your breath. Central planners will always find some excuse to push the rest of us around.

5. Who knows how to make a Carbon-Neutral Pencil?

5.1 The Apparent Contradictions

Alert readers may have noticed two apparent contradictions within this paper so far.

Section 2.1 opened with:

Government has floated a proposal that all buildings be assessed for their carbon footprint before issuing a building consent. This is yet another half-baked scheme which will make housing even less affordable without delivering any measurable benefit. No one knows how to measure such a footprint with any reliability, let alone over the 100 year lifetime of a building.

Yet this paper has referred to two calculations of carbon footprints as though they were well-founded "matters of fact".

The first was the report *Consuming Australia* by Sydney University's *Australian Conservation Foundation*, using data from the *Centre for Integrated Sustainability Analysis*.

We can probably accept these findings if only because any organization with "conservation" and "integrated sustainability" on its letterhead would almost certainly have started out expecting to find the opposite.

Also, the authors of *Consuming Australia* analysed broad sectors of activity rather than a single product or process. They found transport accounted for only 10.5 % of the Australian family's "carbon pie". New Zealand's private vehicle fleet accounts for only 8.5% of our fossil fuel consumption. The two findings support each other.

However, the second research findings were even more "heretical". Chris Goodall, the U.K. Green Party Parliamentary candidate, declared that:

Food production is now so energy-intensive that more carbon is emitted providing a person with enough calories to walk to the shops than a car would emit over the same distance.

We could expect that many people would question Goodall's research.

And they certainly did. The *Times on Line* story carries over 320 responses from critics and supporters of Goodall's story from all round the world – from America (especially Portland), Australia, Canada, the Czech Republic, Denmark, France, Germany, Hong Kong, Ireland, Japan, Kenya, the Netherlands, New Zealand, Romania, Russia, South Africa, Spain, Switzerland, and the UAE. The debate was quite heated – the global warming was palpable.

Some criticized the choice of beef as the "calorie compensator", others challenged the "system boundary", asking whether Goodall counted the energy used to make the car. The cyclists also had their penny-farthings' worth. These two studies point up the apparent paradox of such "carbon footprint" analysis; the more "micro" the analysis, the more room for dispute, and the more self-evident our ignorance.

5.2 Leonard Read's Famous Fable

In his classic essay *I, Pencil, my Family Tree as told to Leonard E. Read*, Leonard Read demonstrates that no single person knows how to make a pencil on their own.⁸

He does this by listing the pencil's components (cedar, lacquer, graphite, ferrule, factice, pumice, wax, glue etc) and identifying the multitude of people involved, down to the coffee drinker in the forest and the lighthouse keeper guiding the shipment into port.⁹

The pencil's self-analysis begins with:

My family tree begins with what in fact is a tree, a cedar of straight grain that grows in Northern California and Oregon. Now contemplate all the saws and trucks and rope and the countless other gear used in harvesting and carting the cedar logs to the railroad siding. Think of all the persons and the numberless skills that went into their fabrication: the mining of ore, the making of steel and its refinement into saws, axes, motors; the growing of hemp and bringing it through all the stages to heavy and strong rope; the logging camps with their beds and mess halls, the cookery and the raising of all the foods. Why, untold thousands of persons had a hand in every cup of coffee the loggers drink!

⁸ Mark Twain made the same point in "A Connecticut Yankee in King Arthur's Court."

⁹ Just Google Wikipedia+Read+Pencil to find a concise summary and splendid videos.

F. A. Hayek drew on Read's essay to illustrate his theory of "spontaneous order" and to explain how prices gather together huge amounts of dispersed information to guide our choices and actions. As the Pencil "says":

There is a fact still more astounding: the absence of a master-mind, of anyone dictating or forcibly directing these countless actions which bring me into being. No trace of such a person can be found. Instead, we find the Invisible Hand at work.

In Milton Freidman's famous video "Free to Choose", he summarized Read's essay and went on to say:

No one sitting in a central office gave orders to these thousands of people. No military police enforced the orders that were not given. These people live in many lands, speak different languages, practice different religions, may even hate one another—yet none of these differences prevented them from cooperating to produce a pencil.

5.3 What is the Pencil's Carbon Footprint?

If no single person, or even a committee, knows how to make a pencil on their own, how can any person or committee calculate its carbon footprint? How can anyone know the carbon footprints of the people who help make the pencil by mining graphite in Ceylon, or making candelilla wax in Mexico, or building the lighthouse that guides the ship into port?

Calculating the greenhouse gases emitted during the myriad processes that go into making the pencil adds yet another level of complexity to the "production calculation" and requires another round of knowledge – taking the exercise even further beyond the realms of possibility.

Two ironies follow.

The critics of Goodall's thesis usually wanted to extend the boundary of his "carbon system" to capture more processes. But the more we extend the system boundary the greater our ignorance. The other irony is that given the ability of prices to capture so much information, a "best guess" on emissions is probably to pay the least. If new products are cheaper than recycled ones they probably burn less carbon.

The Pencil's autobiography even reminds us that any application for a resource consent based on carbon-offsets is open to challenge in court. Objectors simply have to extend the boundary to include the coffee-makers in Brazil. Any claim to carbon neutrality can be challenged on the grounds of false claims – again by simply extending the system boundary to include say the truck-builders of America or the ship-builders of Japan. New Zealand farmers have used the process in reverse to challenge "food miles".

Finally, how many bureaucrats would be needed to calculate the carbon footprint of every element of every building – including the pencil used to draw the plans?

6. Conclusion

We only get burdened with such nonsensical regulations as the request for calculated carbon footprints, and the equally nonsensical strictures of Smart Growth, because simplistic but élitist minds cannot believe that high levels of spontaneous order can operate without being directed by conscious plans created by their own 'superior' knowledge.

The autobiography of the pencil proves them wrong.

We need no further justification to restrain the power of the state and to retain our personal freedom to innovate, freely trade and generally organize our own affairs.

I presume researchers in the US and elsewhere will soon repeat the *Consuming Australia* exercise. Maybe the American Dream Coalition should get in first.

Such research should kill the 'Climate Change' based arguments in favor of Smart Growth stone dead.

However, the Smart Growth planners are like rust. They never sleep.

So what will they think of next?

Owen McShane Director Centre for Resource Management Studies. November 2007.