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SOCIETY - fresh ideas...

Story Russ Grayson 2007

Profligacy, greed or simply don't care?

Is it simple profligacy, greed or too much money? That might be the cynic's question following the revelation that Sydney's Eastern Suburbs - that long stretch of beaches, sandstone headlands and suburbia - have a higher than average ecological footprint compared to other regions of the country.

The news was delivered to local councils by University of Sydney researcher, Manfred Lenzen. Using an adaptation of the ecological footprint model of resource and environmental impact estimation, Lenzen has worked out the environmental impact of the Eastern Suburbs and compared it to the situation of only a few years previously. The findings? The ecological footprint of the Eastern Suburbs is growing.

The trouble with footprints

Lenzen presented his findings, first to a meeting of Randwick City Council staff, then at a public meeting at UNSW organised by the council's sustainability education team. He explained how the ecological footprint method of estimating environmental impact has been improved from the simple concept developed by Rees and Wackernagel in 1992 to something more sophisticated and inclusive.

Ecological footprinting estimates the impact of the production, consumption and waste disposal of goods and services expressed as the number of hectares of land it would take to sustain a particular lifestyle.

Critics may be right in asserting that ecological footprint is not a numerically accurate measure, however, given that its main use has been in environmental education, the figures in hectares it produces are realistic enough. It is a conceptual tool - more a way of thinking about impacts than a set of mathematically correct figures. Lenzen has refined the method to include the use of input-output analysis, supply chain impact, land disturbance and renewable energy scenarios. This, he says, yields a more detailed picture of the impact of lifestyle and affluence.

Writing in *The Ecological Footprint - Issues and Trends* (2003; Lanzen M, Murray SA; ISA Research Paper 01-03, University of Sydney www.isa.org.usyd.edu.au), Lanzen describes how the idea of ecological footprint analysis has changed in less than a decade

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and a half.

"While generally acknowledged as a valuable educational tool that has enriched the sustainability debate, the original ecological footprint is limited as a regional policy and planning tool for ecologically sustainable development because it does not reveal where impacts occur... the nature and severity of these impacts and how these impacts compare with the self-repair capability of the respective ecosystem. In response, the concept has undergone significant modification", he writes.

Even the use of hectares as a measure of the productive area needed to support populations enjoying particular lifestyles had to be revised. The original concept measured the area in terms of hectares based on overseas land productivity. That had to be rejigged to account for the lower productive of Australian land.

The suburban east

From the beaches of Sydney Harbour in the north to the shores of Botany Bay in the south, the Eastern Suburbs accommodates Sydney's second-highest population density. Around 48 per cent of the population lives in apartments, townhouses and other medium density dwellings. The population is also quite mobile, something that probably has a lot to do with the large number of renters and a shifting population of UNSW students.

The harbourside area governed by Woolahra Council in the north is the most financially well-off. The affluence gradient declines in a southwards trend through the Waverly and Randwick City Council local government areas. Overall, the Eastern suburbs residents enjoy an economic sufficiency with enclaves of wealth and affluence interspersed with pockets of poverty and need. Lower socioeconomic enclaves, mainly Housing Commission residential developments, are found in the Randwick municipality. The presence of this demographic gives the lie to the stereotypical reputation of the region as one of high wealth.

Lenzen's finding, that increasing income drives a higher ecological footprint, leads logically to the conclusion that the more affluent residents of the region have the largest environmental impact. This, however, could be an erroneous assumption. It is the products and services that people buy, rather than simple affluence, that influence impact and make for a larger environmental footprint. While they have the same types of household appliances that the lower income demographic might own, higher income groups also spend their money on those products that contribute less the region's ecological footprint, products such as books and theatre tickets. This discretionary spending limits income, by itself, as a reliable indicator of ecological footprint and brings into question the idea of income redistribution through increasing taxes on higher income earners as a means of reducing their impact.

Impact follows affluence gradient

Just how much land-equivalence do Eastern Suburbs residents require to support their lifestyles? Despite his reservations about a direct link between income and impact, Lenzen's research discloses that there does exist a general relationship between them.

- the ecological footprint of the affluent local government area of Woolahra, abutting Sydney Harbour, is 8.31 hectares per capita, up from 8.12ha in 1906
- residents of Waverly municipality, immediately to the south of Woolahra, need 7.97ha to support their lifestyle, compared to 7.53ha in 1996.
- Randwick residents require total of 6.95ha, compared to 6.52ha in 1996.

It is an upward trend in all cases, with Woolahra leading the three local government areas.

Lenzen compared the Eastern Suburbs' ecological footprint to that of the Inner Sydney area - the region surrounding the Sydney CBD. For the same period, Inner Sydney residents needed 8.52ha to support their lifestyles, an increase from 7.66ha in 1996 and greater than that of the most affluent part of the Eastern Suburbs. This he puts down to demographic changes in the region, particularly the increase in the number of single person households. Each of these households buys its own range of products, such as white goods, so there is none the sharing that occurs in larger households.

Inner Sydney is a region of medium density dwellings, a great many dating from the late nineteenth and early twentieth centuries. In those times it was a socially mixed region of middle and working class residents, each in their own areas, plus a few who had found wealth on the goldfields. Their mansions, often subdivided into apartments today, are found in pockets throughout the area. Social change came with the 1970s with the start of 'gentrification', a term that came to imply a certain opprobrium, but which was, in reality, symptomatic of Australia's changing economy. Now, those little working class terraces and the larger homes of the middle class are occupied by Sydney's service sector workers.

The higher population density of the inner urban region does not necessarily equate with higher ecological footprint. It is true that the construction and fitting out of new apartment buildings with white goods and other products produces a spike on the ecological footprint graph, however there are factors in medium density residential development that tend to lower the impact and that, over time, can more than compensate for the initial peak. This includes living close to public transport and shopping venues and the consequent lower reliance on private vehicles, a situation that prevails throughout the inner urban ring.

A local government response

Speakers at the Randwick City Council-UNSW event (Council maintains a formal partnership with UNSW) where Lenzen presented his research praised Council for its initiatives in reducing the ecological footprint of its own operations and in educating residents in ways to reduce theirs'. Council raises funds of over \$2 million a year through an environmental levy on ratepayers and has spent the money on improving water

conservation and reuse, energy conservation, waste reduction, improving remnant bushland and other measures. Importantly, council is upgrading its own infrastructure to comply with environmental standards.

Council sustainability workshops attract people from beyond the municipality who want to reduce their waste production and energy and water consumption. This lends Council's community education program a regional, not just local importance, and reinforces the reality that Eastern Suburbs residents see the coastal strip as a contiguous biogeographical region rather than an assemblage of local government areas.

It appears, then, that Eastern Suburbs residents are being pulled in two directions. The trend towards an increased environmental footprint is being countered, by a growing number of locals, by attempts to reduce their footprint while maintaining their quality of life.

Reduced impact and high quality of life is not as contradictory as they seem because high quality of life does not necessarily imply the accumulation of possessions. It is more a psychological state that grows out of having sufficient material goods, a sense of livelihood and income security as well as intangibles like social networks, friends and conviviality. For a great many people it is these things that really matter.

Lenzen's environmental footprint findings for one of the city's most populous regions has defined a trend. The greater detail disclosed in his research gives planners and policy makers an improved tool with which to think about the future of the region. All that is required now is the imagination to incorporate it into analysis and planning.

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