

Sydney's food value chain: A discussion paper.

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Feeding Sydney

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Comments welcome
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Purpose of paper

Sydney will grow from 4.2 million to 5.3 million people by 2030. This extra 1.1 million people will require 640,000 new dwellings. 160,000 of these will be built in the new north west and south west growth centres. Outside the growth centres another 60,000 dwellings will be constructed on greenfields lands. Then there is land needed for employment, which involves another 7,500 hectares.

In short, urban growth in Sydney has a large footprint.

Beyond 2031 we know Sydney will continue to grow. Another million people by 2050 will mean a city in excess of 6 million people, which is large by developed world standards. And there may well be more after that. But these uncertain numbers are pretty much irrelevant. What we know is that Sydney's food supply system and the basin's agricultural lands are currently in crisis.

The problem is that we know little detail about the crisis, its dimensions, its stakeholders, its impacts and its consequences. What we do know, however, is that there is alarming inattention by governments to the issue, let alone there being policies in the public domain for us to engage with.

This paper explores what we know about Sydney's food value chain. While some implications are drawn, its main purpose is to provide a knowledge base for further discussion and analysis.

So today is timely. Hopefully, it will be a pivotal day in Sydney's food history, in a place with such a marvellous history in serving the Australian and Sydney's food industry.

On data

We know little about Sydney's food supply system. The Urban Research Centre has systematically tried to assemble the story of the task of feeding 4.2 million Sydneysiders. But it has proved difficult. First we attempted to survey the agricultural lands of the Sydney basin using satellite data. We purchased 30 metre resolution Landsat imagery. The data analysis and output, a summary of which you can see here, was painstakingly assembled by our GIS analyst Maria Piquer Rodriguez. The work has had limited success so far.

Maria's work is the subject of another paper which will be available from our web site shortly.

The pertinent question for us to ask today is why was this task left to a group like ours to undertake without funding for labour or data? Instead of 30 metre resolution, 2.5 metre resolutions are available from commercial satellite providers. The task of analysing these data would cost about \$300,000; but then we would have a clear audit of Sydney's agricultural lands, available for ongoing monitoring and response. This neglect by government of basic information gathering is inexcusable.

As we shall discover shortly, other data on feeding Sydney are also difficult to assemble. Despite their economic importance, Australia's cities, including Sydney obviously, are not consistently included as data scales in national statistical collection exercises, especially when it comes to production figures.

An important caveat for this paper, and Bill's paper which follows, then, is that data availability and accuracy are poor and therefore our results are tentative.

With the resources we have available, though, we emphasise that the data we can collect and process is still capable of telling enough of the story to show that action by government is warranted as a matter of urgency.

The food value chain

This graph guides our analysis. The blue columns show the proportion of Sydney's total jobs that are in the key segments of the food value chain: agriculture, beverage manufacturing, food manufacturing, food retail and food services.

Agriculture

First to agriculture.

There were just 6,300 agricultural jobs in the Sydney basin in 2006. They are located where you would expect, on Sydney's NW and SW plains and along the orchard and poultry districts of the Central Coast.

The NSW Department of Agriculture estimates there are about 1000 vegetable farms left in the basin. The ABS estimates these produce 43% of NSW vegetable production (by value). Poultry producers are also significant contributing 42% of NSW poultry meat output and 48% of its eggs. Mushroom growers are responsible for close to 100% of NSW fungi supplies.

But that's about it. In total, Sydney's agricultural output is just 8.5% of the value of our state's total agricultural output, and under 2% of the nation's total.

In other words, aside from selected higher value fresh vegetables, and poultry and mushrooms, the Sydney basin's contribution to Sydney's food needs is as meagre as it could be before you would describe it as insignificant.

When the growth centres and other greenfields lands are transferred to urban uses, the NSW Department of Agriculture surveys show that 52% of the basin's remaining vegetable farms will be eliminated.

When this happens, then the basin's agricultural significance – at least in its present format -- will be lost forever, after just 221 years of white man's custodianship.

In food and beverage manufacturing, though, the food value chain is looking very healthy. Here we find over 30,000 jobs, 4000 in beverages (juices, soft drinks and beer mostly) and 25,600 in food manufacturing.

Beverages manufacturing

The distribution of beverages manufacturing shows the hold this segment has on its key locations, entrenched in the pre-war and post-war industrial zones, valuable sites for distributing to a growing, thirsty population.

Food manufacturing

Food manufacturing, with, 25,600 jobs is similarly located, though with a bit more dispersal. Together, food and beverage are Sydney's biggest manufacturing sub-sector, and easily its most resilient, and easily its most productive per capita, as the value added columns in our graph show.

Yet food and beverage manufacturing, of course, is increasingly owned and controlled by global food corporations, many are British, many are American and increasingly many are Japanese. Their power comes from tagging processed food with brand names.

Brands, though, need shelf space. In Sydney, this shelf space is controlled by the retail oligopolies, chiefly the powerful duo Woolworths and Coles, or Wesfarmers. On the oligopolists' shelves, the manufacturers' brands compete for margins. Increasingly, as we know, the retailers are winning.

Food retail

There are 57,000 food retail workers in Sydney. Retailing jobs follow the population, especially the suburbanised population, especially in the suburbanised malls in and among the suburbanised population, like at Castle Hill, Warringah, Miranda and Penrith. But everywhere else too.

So a quick summary.

The four sub-sectors I have described account for 93,000 jobs, exactly one half of all Sydney's food jobs: growing food, manufacturing food and drink, and retailing. Remember, just 6,300 of these jobs are in agriculture, producing less than 3% of the value added along Sydney's food chain.

Food services

There are another 93,000 food chain jobs though. These are in food services, comprising take-aways, fast food chains, cafes and restaurants. The food services segment is Sydney's largest food chain employer. Like retailing, food services jobs are pretty much spread across Sydney's populated sub-regions but with a clear inner and eastern suburbs bias. Except for Penrith, standing out like a chicken wrap, there is much to suggest that western Sydney is not alone in its desire for someone else to do the cooking.

Household consumption

The concentration of employment in food services is reflected in what Sydney households spend their food money on, which is described in this graph.

The standout spending category for Sydney households is meals eaten out and take away food. The next largest spending category is alcoholic beverages. Together these two categories constitute 38% of total household food and beverage consumption, or about 36 times what Sydney spends on its own fresh vegetable output.

Another version of this graph then is this.

One implication of our spending so heavily on the higher value added food products and services – i.e. where the actual food content makes us an increasingly small portion of what you buy -- is that for the overwhelming majority of Sydney households, consuming fresh vegetables grown in Sydney is not an affordability issue. Rather, we choose, or are led, to buy food in other forms.

This graph, with the blue bits showing Sydney-sourced fresh food – the lettuce in the hamburger bun, if you like – shows how much we choose, or are led, away from local food supplies.

Waste

At the end of the food value chain is food waste. The value of fresh food waste in Sydney is roughly equal to (coincidentally) the total value of Sydney's fresh food agriculture: a little over \$600 million per annum.

Make of this what you will, indeed make what you will from all these data and graphs, for you are the experts and the concerned citizens eager for action.

But allow me to conclude with my three penneth worth.

Conclusions

The main point of this paper is a resource paper for the *Feeding Sydney* project.

Some speculative comments are possible though.

1. Clearly, Sydney-sourced fresh food attracts a meagre share of value flows in Sydney's food economy. Sydney's fresh food agriculture is threatened not only from diminished access to land and water resources, but also from its poor leverage over food industry value creation and distribution and poor leverage over Sydney households' food spending patterns.

2. While there are substantial arguments – including emotional and nostalgic arguments -- for re-aligning the food value chain in favour of Sydney-sourced fresh food, these must confront the enormous claims on value that come from other parts of the food chain. In terms of market power, Sydney farmers and the distributors of their produce are marginalised by the control over the food supply chain that comes from food manufacturers, retailers and fast food companies.
3. Put another way, in the food market, agriculture has little market power and little capacity for competitive returns. But in the residential land market the food agriculturalist has significant market power and enormous capacity for high returns. Locked out of the food value chain, land-owning farmers instead choose, or are led, to the extraordinary gains available from selling rural lands to those who convert them to urban use.
4. Much can be gained in understanding by analysing the food chain in terms of it being a competition between powerful players for the substantial consumer dollars on offer.
5. That said, there is also much to be gained in understanding the food chain by analysing household consumption expenditure and householder food consumption habits. Sydney households in general are not poor. Their potential market power is enormous.
6. Finally, I cannot let the opportunity pass to emphasise how extraordinarily deficient the food sector is when it comes to having access to quality data and information to assess its condition. Governments have an immediate duty here, and there are Centres like my Urban Research Centre, with the skills and willingness to act as a quality data collector and information provider.

Thank you for listening.

Sydney's food value chain

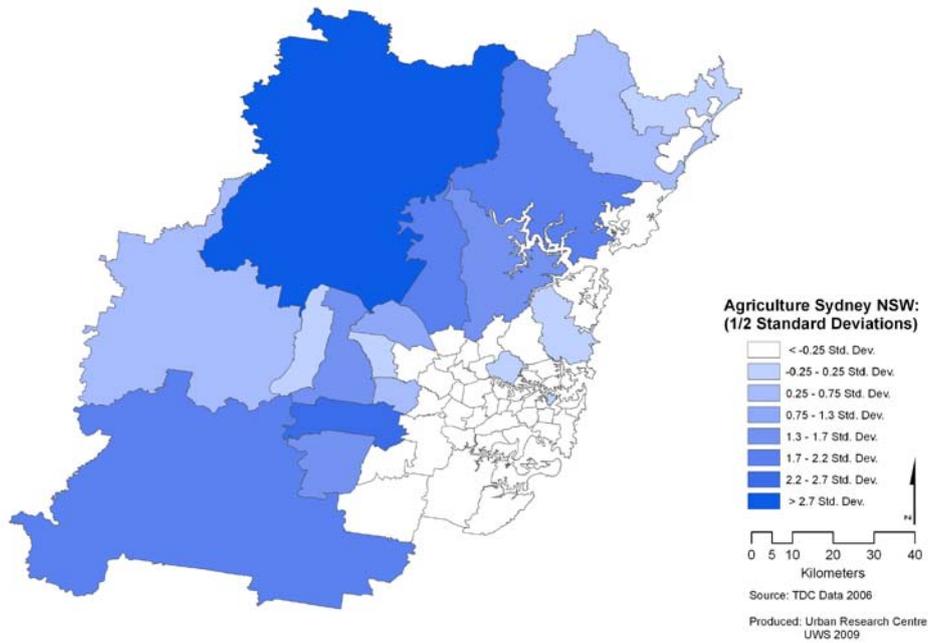
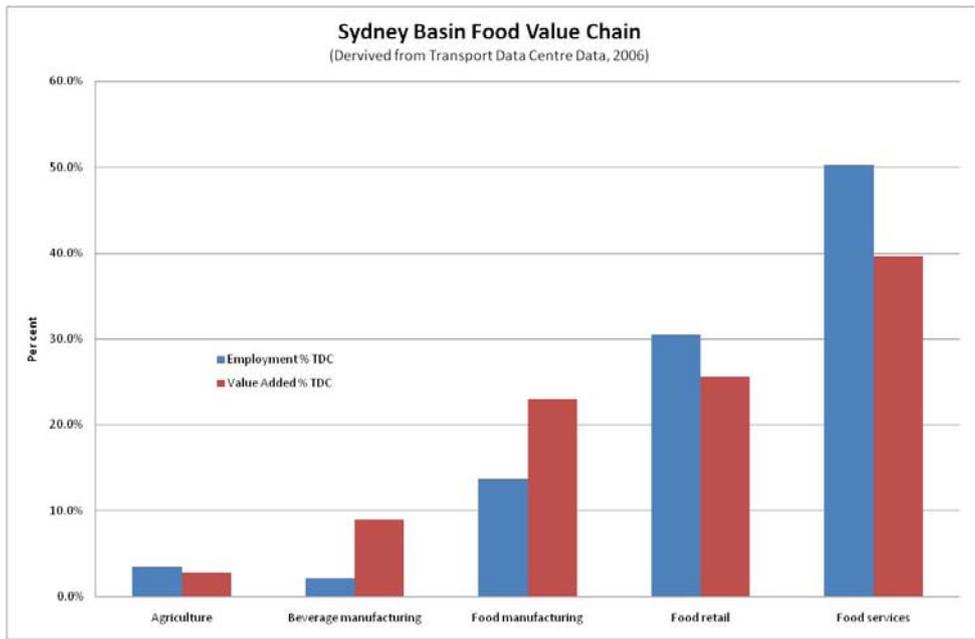
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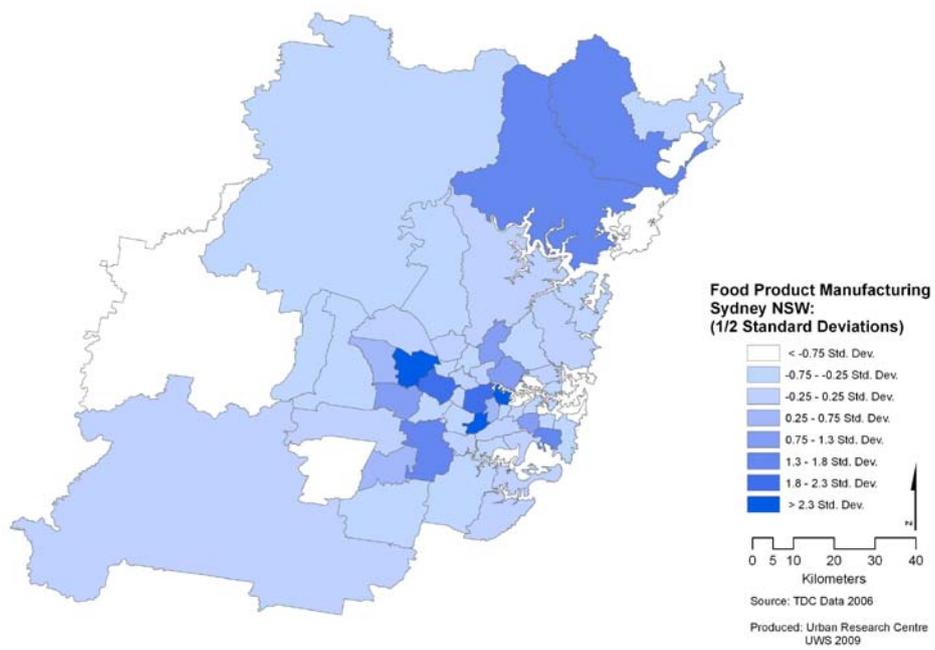
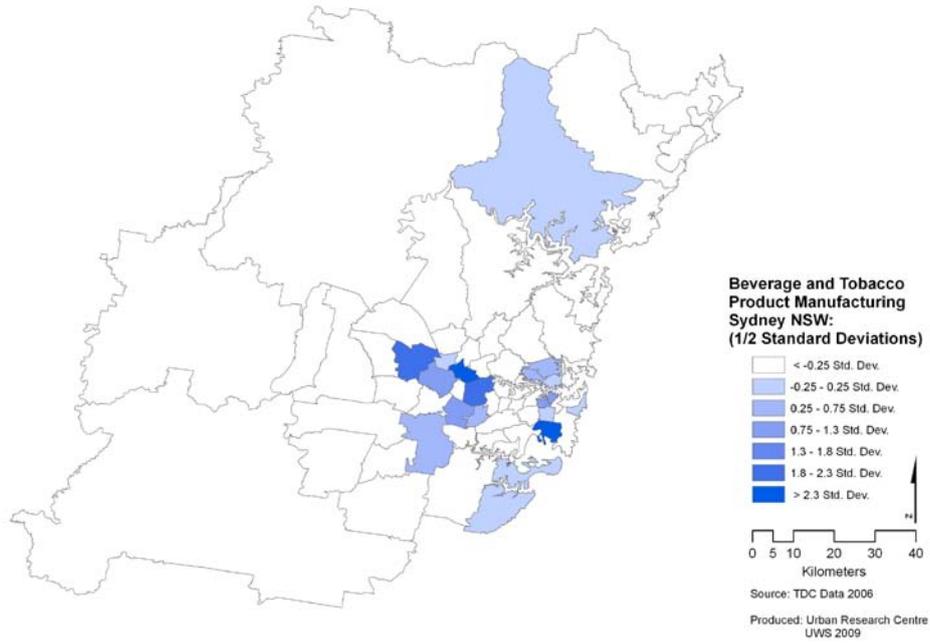


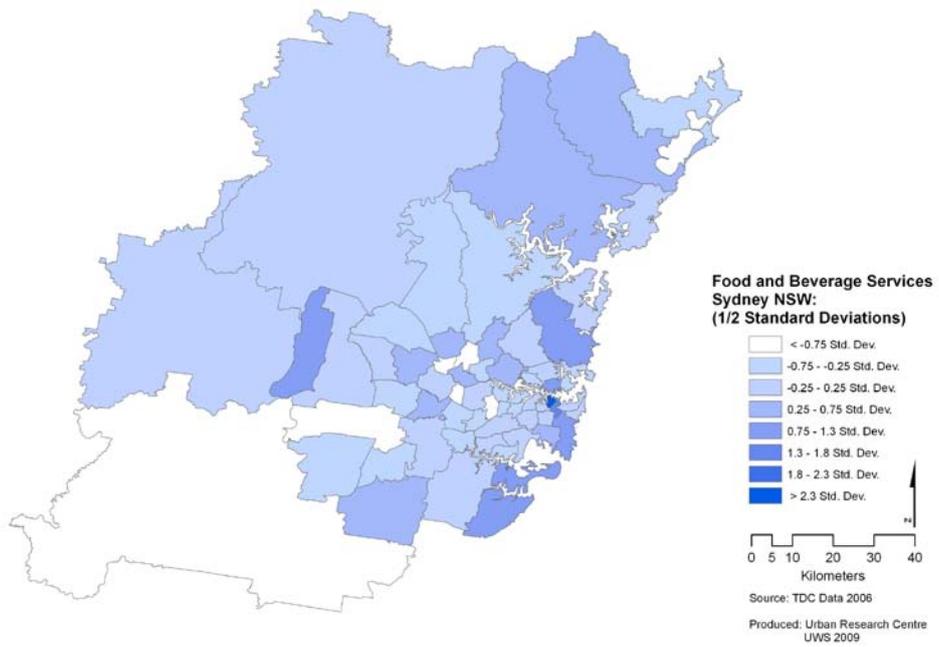
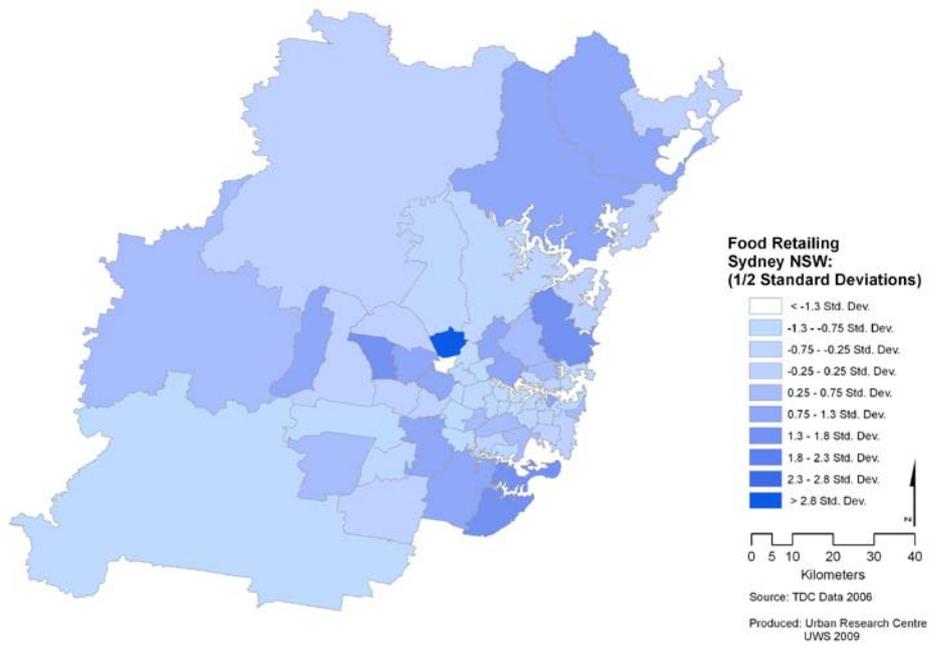
Structure

1. Purpose and issues
2. Results from satellite-based land use audit
3. Valuation of food supply chain
 - Agriculture
 - Manufacturing
 - Retailing
 - Food services
 - Waste
4. Conclusions

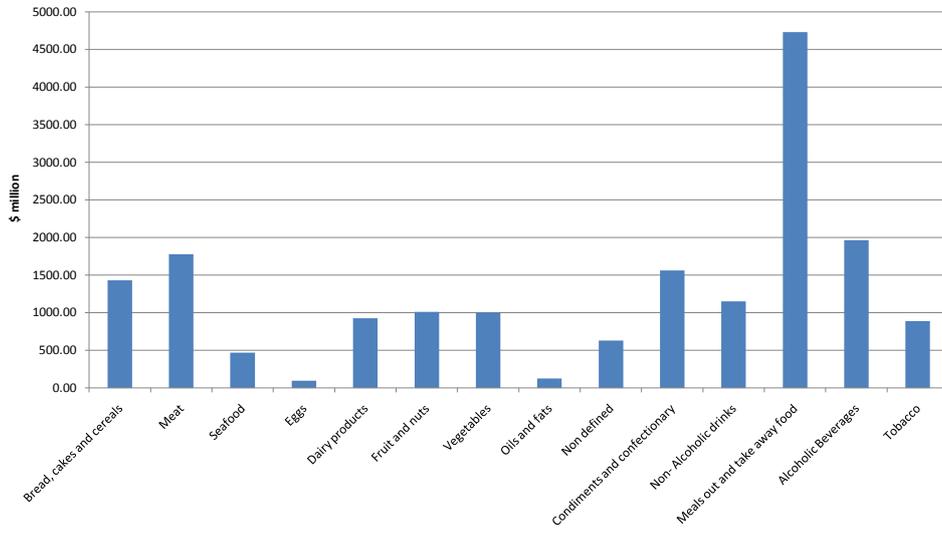




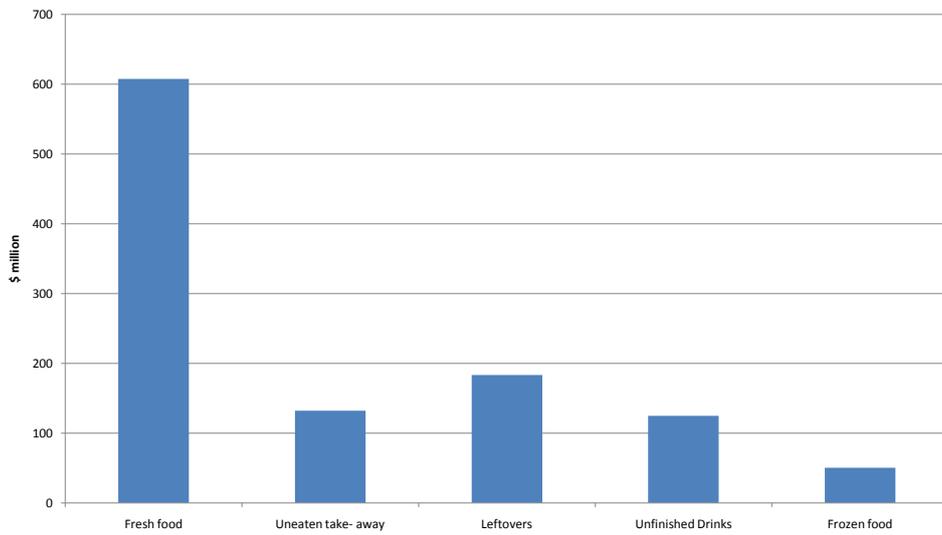




Total Sydney Food and Beverage Consumption 2008



Total Sydney Household Food Waste



Conclusions

1. Sydney-based food growers attract a meagre share of value flows
2. These growers are marginalised by the market power of the manufacturers, retailers and fast food chains
3. Yet in the residential land market, owner-growers have significant chance of high returns
4. We need also to follow the consumer dollar
5. Related, we need to focus, too, on householders' food behaviours
6. We need better information.



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