

Healthy Built Environments Food and the City

Anthony Capon and Susan Thompson

The University of New South Wales

Food is essential for health. Indeed, without food there is no life.

Historically, Australia has been a food exporter. For some commodities, such as wheat and meat, we currently export up to 80% of our production. But some of CSIRO's leading agricultural researchers are now asking a new question: 'Could climate change make Australia a food-poor country in the future?'

Australian agriculture will be hit early and hard by climate change. The Australian Bureau of Agricultural and Resource Economics (ABARE) estimates agricultural production could decline by up to 10% by 2030 and 19% by 2050. If the population of Australia continues to grow, it is possible we will be a food-poor country in the future. We tend to think there is plenty of space to grow food in Australia, however only 6% of the continent is suitable for agricultural production.

Most cities develop in places that are good to grow food. As cities grow, this arable land is at risk from urban development. Recent articles in *New Planner* by Ian Sinclair have highlighted the value of planning for food security. Once land is lost to urban development it is almost impossible to regain for food growing purposes.

Urban agriculture – both commercial and civic agriculture – has a health and social value. Civic agriculture includes growing food in community gardens, backyards, on verandas and in the street. The health benefits can include: nutrition; exercise; social interaction;



Contested landscape: western Sydney. View over farmland and bushland toward housing in Carnes Hill and West Hoxton. (Photo courtesy John Reid)

cultural exchange and good mental health.

The future of Australia's eastern seaboard is a case in point. The coastal strip from Nowra to Noosa, between the Great Dividing Range and the Pacific Ocean, is a rapidly urbanising landscape. Already 40% of the Australian population lives along this coastal strip – more than 8 million people. By 2050, what will this population be? Perhaps 15 million or more?

This narrow strip of land – about 1000km in length – contains some of Australia's best agricultural land and (currently) has reasonably good rainfall. As well, it is home to a rich diversity of natural fauna and flora. In the interest

of future food security and health, we should think strategically about land use along this strip. How can we house, feed and move people in healthy and sustainable ways?

International experience is instructive. Urban growth boundaries have been used to protect agricultural land in Canada and the United States.

The experience of Cuba, after the collapse of the socialist bloc, is also particularly interesting from a health perspective. During this time, a large number of urban food gardens emerged in Cuban cities in response to reduced food imports. Daily per capita food energy intake reduced. Levels of physical activity increased because there was less oil available



to power machines and transport. In 2007, measurable health benefits were reported in the American Journal of Epidemiology. Obesity rates declined by 50%, and total deaths declined by 18%. Of course, we would not wish for such a trade and economic crisis here in NSW, however there are lessons for a resource constrained future.

The adjoining photograph was taken as part of an art and science collaboration on the Contested Landscapes of Western Sydney, co-ordinated by John Reid from the ANU. A group of artists are currently exploring land

use contests with scientists and the community in western Sydney, and responding with creative works for public exhibition. This innovative collaboration provides new ways of communicating about health and sustainability issues.

Quantitative modeling of putative urban development scenarios would enable us to understand potential impacts of a growing population, the sea-change phenomenon, and associated urban development, on agricultural land along the eastern seaboard.

Our future food security and health depends on wise land use planning. It is good to see land use contests on the city fringe are prominent in the current review of the Sydney Metropolitan Strategy. The precautionary principle would have us protect our limited supply of agricultural land from further urban expansion.

Professor Anthony Capon and Associate Professor Susan Thompson direct the Healthy Built Environments Program in the City Futures Research Centre at the University of New South Wales (<http://www.fbe.unsw.edu.au/ct/HBEP/>). The Program receives funding from the NSW Department of Health.

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