

Food security and sustainability: Are we selling ourselves short?

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This paper deals with the question: do some food systems engender a more positive social environment than others, and does this matter? The pressure to generate financial capital from food production is enormous, especially for a country like Australia, and financial imperatives clearly drive choice of food production methods. Many have argued that environmental costs of food production are hardly ever factored into the profitability equation and the notion of sustainable development represents a position where consideration is given to environmental concerns while at the same time maximizing economic returns. While the importance of choice of food system in order to benefit the natural environment has been argued for, another environment — that of the social environment — remains relatively underexplored.

Introduction

The terms 'food security' and 'sustainability' have gained increased importance in public health nutrition. Once confined mainly to developing countries, where problems with actually getting enough have been of particular concern, these ideas have become integral to thinking about food and health in more developed countries. Notions of food security and sustainability are principally about meeting our present food needs without compromising the ability of future generations to meet theirs. In other words, we need to address the question: how do we ensure that our food systems take account of a number of pressing environmental issues, now and in the future?

Addressing this question becomes very important in the local Australian context. For although Australian farmers are considered to be some of the most efficient in the world,¹ efficiency and profitability come at a price. It is now well recognized that many aspects of modern food production and distribution systems have had a disastrous effect on the environment.² On the land, erosion, salt, acidification and nutrient loss have degraded the soil. In waterways and rivers algal blooms give rise to water pollution and stagnation.^{3,4} Food distribution systems, which bring us a huge variety of foods, at the same time often pay little attention to potential environmental problems. Shoppers in the United Kingdom, for example, select from apples grown and transported from South Africa, green beans from Kenya, and shrimps from Bangladesh.⁵ In the United States it has been estimated that any given food travels approximately 2500 km from producer to consumer.⁶ The transportation of food often involves the use of non-renewable energy sources (e.g. fossil fuels). Moreover, the problem is compounded by the production of greenhouse gases.

In Australia attempts are being made to address environmental decay and arrest land degradation; for example, the Landcare movement.⁷ However, it has to be recognized that Australia is locked into food production and distribution systems that are not environmentally viable in the long term.

While the problems are now well known, the solutions are extraordinarily difficult to enact. Why?

Food as a commodity

It is important to remember that the food business is big business. This is true for most countries, but for a country like Australia, food remains one of the great generators of local and national wealth and employment.

In the agricultural sector alone, in 1995–97 there were about 100 000 farms in Australia and the gross value of commodities produced was around \$26 billion. This is more than in other primary industries; for example, greater than the total combined turnover in coal and metal ore mining.⁸ Thus, agriculture remains one of the most profitable industries in Australia, and food is the mainstay of all agricultural products. The food processing industry is the second largest industry in the manufacturing sector in Australia, with a gross turnover of \$41 billion.⁹ As an export, food is one of the most successful commodities traded by Australia. For example, exports of food and beverages to the United States alone currently stands at \$35 million per year, and 27% of all Australian exports come from the agricultural sector.¹⁰

So when you talk food in Australia, you talk dollars. And any challenges or alternatives to current methods of food production and distribution normally have to be justified in economic terms.

Notwithstanding the enormous economic advantages and job creation supported by the food supply, many believe that the time has come to take the environment seriously. The profits from the proposed privatization of parts of Australia's telecommunications system have, for example, been earmarked for environmental repair. In the area of food production, the notion of sustainable agriculture, a term that entered the language in the 1980s,¹¹ is now regarded as a principal

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means of addressing the environmental problems, while at the same time supporting the economic viability of agriculture and the current market share.

Sustainable agriculture

The imperative of sustainable agriculture has been used to justify activity on two fronts. Joan Dye Gussow, a nutritionist with a particular interest in environmental issues, refers to these as the Hyper-Expansionist (HE) option and the Sane Humane Ecological (SHE) option. Hyper-Expansionism is a high-tech option.¹² It is especially evident in modern biotechnology where the recombination of transgenic material in living organisms is used to develop new characteristics, processes and products. Hyper-Expansionism promises cheaper food, less waste, fewer applications of pesticide and fertilizer.¹³ Put simply, the aim of modern biotechnology is to alter nature to fit with many of our current agricultural practices. On the other hand, SHE emphasizes renewable resources and biodiversity. Chemical enhancement of the soil is kept to a minimum and replaced by crop rotation. Diseases are discouraged by integrated pest management and interplanting of species. Put simply, the aim of this approach is to rethink current farming practices to preserve the environment.¹⁴

Given the apparent difference in philosophy and approach, it may seem odd that both HE and SHE can claim to assist in food security and sustainability. How does this happen? This paradox occurs when food security and sustainability are considered within a narrow, but often common, definition of sustainable agriculture. It happens when sustainability is reduced to the priorities of economics and the environment. This dual focus on economics and environment have led some commentators to regard sustainable agriculture, like sustainable development, as something of an oxymoron.¹⁵ One can have current agricultural development, in terms of investment, profits, productivity, wages, capital etc., and one can have sustainability in terms of small, self-sustaining eco-friendly systems; but the way things stand, one can't have both.¹⁶

It has become clear to some that certain modern approaches to sustainable agriculture, through its gradual institutionalization, have become overly preoccupied with nature and the natural sciences.¹⁷ When this happens, priorities almost inevitably become those of the economy. Cultural attitudes to nature are historically constructed, and Western cultures have a long history of viewing nature, the environment etc. mainly as an economic resource.¹⁸ Under these circumstances it is no wonder that the economic 'bottom line' becomes the only line to consider. These attitudes have been especially privileged over the past two decades where the economy and economics are believed to be a Holy Grail,¹⁹ and where the needs and urgencies of market values now overwhelm and subsume societal and community values. But as Dahlberg points out, sustainable agriculture can only be sustainable when it is recognized that other portions of the food system, and the larger society, also become sustainable.²⁰ In other words, for food systems to be truly sustaining they need to include social perspective.²¹ This of course is nothing new. Food systems have always had a social dimension, and foodways have developed around human need in terms of exchange value and usage value. A recognition of

the social is therefore extremely important. Instead of asking which food system is the most economically profitable, or even environmentally profitable, we should be asking the question: which may be more socially profitable?

Why focus on the social?

An examination of the social is very timely. There is a rapidly increasing body of literature in the human sciences concerning social cohesion, social norms and trust in a range of human interactions. In the social sciences, a revival of interest has been seen in notions of trust and cooperation, especially as they apply to neo-classical frameworks of economic activity. For example, Francis Fukayama — an arch defender of free market economics²² — now believes that the market can only go so far in producing structures that promote and sustain economically healthy communities.²³ Trust and its civic associations are indeed vital and necessary components of long-term economic stability. In political science too, the importance of trust and cooperation are now crucial considerations in the development of public policy.^{24,25}

Until recently the health sciences have paid only lip service to the value of focusing on community factors, such as social structure and cohesion. However, the work of Wilkinson on income inequality,²⁶ House *et al.* on social networks²⁷ and Kawachi *et al.* on trust,²⁸ to name but a few, demonstrates that there are powerful correlations between social organization and population health. These studies question many current approaches in health promotion that focus excessively on behaviour change. As Marmot *et al.* have demonstrated, the relative risks of individual lifestyle factors; that is, diet, smoking, blood pressure, etc., account for only about 30% of common health problems (e.g. cardiovascular disease).²⁹ In other words, once these risk factors are accounted for, a large and unexplainable number of illnesses and deaths remain. When social relationships are included as contributors to mortality and morbidity, however, the combined explanatory power of the behavioural and the social is much more powerful.³⁰

Most of the evidence for the importance of the social comes from large epidemiological studies which, by themselves, do not necessarily throw light on causes and effects. Nor are they able to examine the underlying mechanisms involved. And while current research examines the expression of psychosocial factors in the aetiology of disease,³¹ the focus is ineluctably drawn back to those social organizations which strongly influence people's lives. Thus 'social capital' — a term used to gloss the stock of trust, cohesion and cooperation in a community³² — is now considered to be a powerful health determinant. As Lomas points out, the issue facing public health today is to take up the challenge implied in this work by balancing it against a more individualistic, asocial examination of lifestyles, which currently preoccupies most research and interventions in health.³³ The question we in nutrition might want to ask is: given that social capital has been demonstrated to have such a strong relationship with health, can we examine food and food systems as ways of promoting social cohesion, trust and cooperation?

The importance of the social

The understanding that food and foodways provide a social 'glue' for a community or group is, of course, not new. Food

distribution systems have long been used by anthropologists to examine the functionality of a culture.³⁴ Recent work in South Australia demonstrated that food provides a focal point for much community activity and social contact. Baum and her group found that food provided the opportunity to socialize and celebrate. It also supports acts of altruism in occasions like fund-raising dinners, meals on wheels and giving surplus garden produce to friends and neighbours.³⁵

Some investigators have emphasized the importance of community food systems as ways of promoting the benefits to communities: economic, environmental and, importantly, social.^{36,37} Such systems are often described as 'eco-friendly' because they are considered to benefit the local economy and the physical or natural environment. However, the co-operation and trust built into and emanating from such food systems also go a long way in supporting a positive social environment. Eco-friendly food systems are usually local or community driven. They tend to promote eating fresh, local and seasonal produce. They also promote the coming together of producers and consumers in ways that familiarize each with the wants and needs of the other.

We can see this in the Australian context in The Sydney Fresh Food Bowl project, which promotes the consumption of local and fresh foods in Sydney's western suburbs. The project also incorporates aims that raise awareness of the social nature of local food systems. Open farm days, for example, are designed to connect consumers and producers in a spirit of cooperation and mutual learning.³⁸ The Sydney Farmers Market is another example of a project that attempts to promote cooperation and trust by bringing producers and consumers together, face-to-face, to discuss the needs of shoppers who, at the same time, gain an understanding and respect the whole process of farming.³⁹

Central to the ideas supporting these networks are principles of eating local, fresh seasonal foods. These ideas have been promoted as eco-friendly eating, and thus friendly to the natural environment. But we might want to also say that they are also friendly to the social environment as they are often structured so that they promote cooperation, trust and social cohesion. How ready are people to take up these eco-friendly ways of eating?

Eat Well SA

The Eat Well SA project in South Australia has, as its basis, the promotion of healthy food choices that incorporate environmental considerations.⁴⁰ As part of preliminary data gathering we commissioned a survey of households in Adelaide to ascertain the level of understanding and awareness of environmental principles.

The 4400 households surveyed were selected on the basis of probability sampling, and the response rate was about 70% (about 3000 respondents). Respondents were asked a series of questions about food issues that had an environmental focus, such as: how important was it for people to buy foods that had not been transported long distances; to buy fruit and vegetables in season; or to buy food without too much packaging.

The results from survey respondents, who were by and large female (57.7% of total sample), showed that there was a high level of agreement (around 80%) with the idea of eating more foods that were fresh (not having undergone much

processing) and buying fruits and vegetables in season. There was less support for buying foods that had not travelled long distances or foods without too much packaging; however, the results were still impressive (40–60% in favour).

The survey tells us a number of things. First, that there is a state of readiness in the community about environmental issues and eco-friendly eating. Second, that there is already some awareness of the importance of incorporating a concern for the environment when promoting healthy eating habits.

Of course, none of this means that a focus on social or environmental issues should be undertaken in ignorance of economic factors. Rather they should be seen as ways of tempering economic hubris with other considerations when thinking about our options.

Australian organic food sector

A useful case study here is the Australian organic food sector, which has made a significant economic impact recently. The sector now has 1600 registered producers and a peak lobby organization, The Organic Federation of Australia. The growth in the market of organic food has been surprising: from \$28 million in 1990 to \$80 million in 1995.⁴¹ More recently, domestic sales of organic food in Australia have been estimated at \$150–200 million per year.⁴² This recent increase may be due to the fact that organics are promoted by producers as free of genetically modified organisms (GMO). Australian surveys have shown that the public's support for foods containing GMO has fallen from 66% of respondents in 1997 approving, for example, vegetables containing GMO,⁴³ to about 50% in 1999.⁴⁴ Therefore, there is potentially a large market for foods without GMO.

Given that much organic food is sold locally,⁴¹ and given that it is often purchased on the basis of a trust that it has been produced with due regard to the land, and ethical and humane practices of husbandry, it can be argued that networks of cooperation can indeed pay off — socially and economically to local communities. However, organic food networks do not have a monopoly of trust and cooperation. Experience from the United States, as summarized by Feenstra,³⁶ demonstrates that community food networks that build in social and eco-friendly, although not necessarily organic, production systems can also expand local food economies. This is especially relevant for Australia when it is remembered that small- to medium-sized businesses now comprise 50% of the total workforce, and that the fruit and vegetable sector is one of the most rapidly growing areas of small business.⁴⁵ Therefore, local community food systems have a potential role in nurturing microeconomic climates.

Conclusion

The question posed at the beginning of this paper was: food security and sustainability — are we selling ourselves short? On the basis of the material presented here — especially the evidence on the relationship between social organization and health — we might want to ask other questions such as, which food systems are most likely to promote trust and cooperation? Which food systems are most likely to increase participation? Which food systems are most likely to increase social cohesion? They will of course be those systems that factor people into them, that recognize social values, and include the community, however defined, in the process.

Recent protests at the World Trade Organization summit in Seattle, USA and the World Economic Forum in Davos, Switzerland are timely reminders that there is much community-based opposition to what are considered to be undemocratic globalizing economic forces that are too powerful and lack a human face. And we will indeed be selling ourselves short if we do not recognize the need — indeed the value and worth — of including the social in our considerations of food security and sustainability.

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