## TOWARDS SUSTAINABLE CITIES;

A Submission to the House of Representatives Standing Committee on Environment and He 2003e Inquiry into Sustainable Cities

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#### Introduction

It has become commonplace to posit the need for sustainability in the economy and society, including patterns of urban and regional development. More troublesome is identifying what this actually entails and how to generate the necessary changes. As Eckersley (1998:4) notes, 'Sustainable development offers an alternative to conventional growth as a path to progress, but exactly what it means and how it can be achieved remains unclear'. This submission (i) examines economic, social and ecological dimensions of sustainability, (ii) considers options for restructuring patterns of urban and regional development, and (iii) discusses the impediments to change. It is a stocktaking of how to address a challenge that will surely be at the forefront of public policy in this century.

A stocktaking like this is particularly difficult in the current political economic milieu. The globalisation of capital, the influence of neo-liberalism, and the practices of corporate managerialism reduce the apparent scope for public policy to serve as an instrument for social reform (Self 2000, Stilwell 2000). This prevailing 'economic rationalist' agenda is fundamentally incompatible with concerns about sustainability. The Federal government's stance on control of greehouse gas emissions is symptomatic of this subordination of environmental concerns to a more narrow view of economic interests. The irony is that by addressing the sustainability issue in practical ways Australia could have the capacity to be an international exemplar, creating the basis for a more effective long-term economic strategy. Herein may lie our real comparative advantage, in pioneering new directions of development, including patterns of urban and regional development, which put the concern with sustainability in a central place. In this sense, sustainability is an opportunity as well as a challenge.

## The Dimensions of Sustainability

Sustainability has interconnected economic, social and ecological dimensions.

Economic sustainability requires that goods and services be produced by using resources – natural, manufactured and human – is a manner that can be indefinitely reproduced. That requires the avoidance of waste. It requires the use of production technologies that are efficient in the sense of generating the desired outputs from the minimum resource inputs. It requires systems of distribution which do not squander resources, as commonly occurs, for example, when competing firms produce similar products and then transport them, sometimes over vast distances, to be marketed in each other's territories. There is a fundamental tension here between the processes of market competition and economic planning. Competition may provide incentives for innovation and cost-reduction but also can lead to socially inefficient duplication, while the processes of economic planning have the capacity to eliminate waste but may be insensitive to variability in technology and consumer preferences.

How to balance market competition and economic planning in the quest for sustainability is evidently a complex issue. It raises fundamental questions about political economy. The use - some would say exploitation - of nature and of labour in the pursuit of profits and economic growth are the essence of capitalism. Therein lie sources of both dynamism and contradiction in the system. The dynamism is manifest in the ongoing quest for new technologies and changes in the organisation of capital which have the capacity to expand the economic surplus - the excess of goods and services over what is needed to simply reproduce the economic system. The contradictions include the tension between such a growth-oriented system of production and an uneven income distribution which recurrently threatens the high consumption levels on which the system depends. In the modern era, a further contradiction arises because of the recurrent tension between the real productive economy, making goods and services, and the complex financial institutions which are the focal points of speculative activity. Dealing with these contradictions - and the associated tendencies towards economic instability, insecurity and inequality – is at the heart of producing a sustainable economy. Whether capitalism can be transformed to meet this requirement of economic sustainability is the key issue.

Social sustainability is equally complex. In general terms, this requires a set of social structures and relationships which can be maintained, if not indefinitely, at least over more than one generation. But, of course, there is continual change in the forms of social organisation, sometimes driven by structural economic conditions but also responding to the evolving aspirations and experience of diverse individuals and groups within the society. So social reproduction is seldom straightforward; and few would doubt that the rate of social change – and social dislocation – has accelerated. A more modest interpretation of social sustainability is the avoidance of major conflicts which break down the cohesion and continuity of social life during those processes of change. Arguably that is precisely what present economic trends threaten, as the combined effects of urbanisation, consumerism and growing inequality generate increased social stress. Because the relentless commodification of social life elevates individual consumption over collective or communal concerns it thereby reduces society to merely an aggregation of individual interests.

The institutions on which social sustainability depends, and even that way of thinking about society as something more than the aggregation of individuals, are casualties of these conditions. Former British Prime Minister Margaret Thatcher is famous for her claim that 'there is no such thing as society'. The dominant influence of neo-liberal ideologies and practices throughout contemporary capitalist societies have, in effect, partially fulfilled this vision but at the expense of social sustainability. The threats to the cohesion of urban society are a particular manifestation of this transformation.

**Ecological** sustainability is a yet more fundamental concern. Its definition and interpretation are contentious and continue to be a focus of debate. Essential aspects are:

- maintenance of bio-diversity: ensuring that there is no further loss of species of flora and fauna as a result of excessive loss of habitat or from other forms of environmental mis-management;
- ecological integrity: preventing environmental stresses beyond the coping capacity
  of natural waste disposal mechanisms such as winds, tides and the biological
  breakdown of organic materials;
- intergenerational equity: ensuring that we leave to the next generation a physical environment that is in at least as good a condition as that which we inherited.

These are stringent conditions. They deny the legitimacy of continuing to live at the expense of both nature and future generations. The gulf between these ecological principles and current economic practices is all-too-obvious. Indeed, many current economic practices are in this broader sense uneconomic because they are unsustainable. Nowhere is this more evident than in cities, where the prevailing patterns of production, distribution and consumption are associated with rapacious demands for non-renewable energy resources; and where major environmental stresses arise because of the prodigious generation of waste products. So the key question is what, if anything, can be done to reduce or eliminate these environmental problems.

## Time, Space and Sustainability

Dealing with these interacting impediments to economic, social and ecological sustainability is necessarily complex. Changes in personal practices, institutional arrangements and prevailing values are all required. Significant restructuring of both the temporal and spatial dimensions of our lives, individually and collectively, is implied. Regarding *time*, a central problem is the 'live now, let others pay later' approach which is implicit in economic and social practices which deplete the stock of natural capital available to subsequent generations. In economic jargon, a lower social rate of discount will need to be applied, so that consumption and investment decisions take more account of long-term impacts. Regarding *space*, there is also need for radical change. We will have to pursue more balanced patterns of urban and regional development which impose less economic, social and ecological stresses. Rural land-use management is a case in point, since sustainability requires a reversal of many of the practices which have been responsible for land degradation and resource depletion (Vanclay & Lawrence 1995).

The spatial implications for the cities are equally significant. Some might say that the notion of *sustainable cities* is an oxymoron – that large, dense urban settlements and economic, social and ecological sustainability are incompatible. Certainly, there have always been tensions in the urban/rural dichotomy. Economically, the growth of cities over many centuries has depended on raising rural productivity by more extensive use of technology. As a result less and less people have been directly involved in food production, making a massive agricultural surplus over their personal food requirements in order to feed the

growing urban populations. Socially, the cities have drawn on the rural areas for sources of migrant labour to meet the workforce requirements of urban manufacturing and service industries, in the process undermining the traditional bonds that were a former source of social stability. Ecologically, the cities have a rapacious relationship to nature in that they destroy habitat, escalate energy demands and require the use of the natural environment as a receptacle for the waste products of urban living, thereby causing pollution of land, air and water. The concept of an 'ecological footprint' provides a simple way of visulising this non-symmetrical relationship: in the case of Sydney it has been estimated that this footprint is about 35 times the size of the metropolitan area (Beale & Dayton, 1996). Not all cities generate these problems in equal measure, of course, but the basic tendencies are both structural and pervasive.

Take *energy* use, for example. This is of particular concern because of an increasingly widespread recognition of the depletion the oil reserves on which so much our the existing processes of economic production and transportation have been based (Fleay 1995). A pronounced urban-rural dichotomy raises energy demands in at least three ways:

- food production becomes more capital-intensive as a shrinking rural population
  has to feed a growing urban population: mechanised farming requires more energy
  for making and running agricultural equipment;
- food transportation to the cities then consumes additional energy resources;
- waste disposal adds further demands for energy to be used in pumping effluents
  from the cities. Such wastes, some of which can be used to enhance agricultural
  productivity when generated in rural areas, constitute a significant ecologicalmanagement problem when generated in cities.

This sort of reasoning supports the view that it is urbanisation *per se* which is the fundamental obstacle to achieving sustainability. That is why the issue of promoting regional development is of such contemporary relevance, notwithstanding the current lack of political support for decentralisation policies. But much can be done to increase sustainability without the total eradication of the urban-rural divide. The key issue is to identify necessary elements of spatial restructuring that would move us towards, rather than away from, sustainable

outcomes. A few examples will suffice before turning to broader reflections on the constraints imposed by economic structures, spatial inertia and political will.

## **Transport**

Sustainability requires a re-orientation of urban transport systems to reverse the trend from public towards private transport. This is a global challenge. Given current automobile technologies; it is simply not feasible for urban populations in burgeoning third world cities to attain the levels of car use currently existing in cities like those in the USA or Australia. The situation in China and India is an obvious case in point: their vast populations could not have car ownership levels comparable to western societies without generating intractable problems of ecological sustainability (Beed & Moriarty, 1992). On the other hand, it may be objected that it is unreasonable to deny to the people in the developing nations what citizens of already developed western cities enjoy. And, doubtless, the private car conveys many advantages, particularly in respect of flexibility and personal security. So public transport with those attributes will need to be provided in order to bring about the necessary transformation to a sustainable outcome. It is a massive challenge, of course, given the private economic interests tied into car production – the vested interests represented by the so-called 'roads lobby'. But some cities have shown that progress is possible. Urban managers in the Canadian cities of Toronto and Vancouver, for example, have sought, with partial success, to restore the share of public transport in urban trips, while European cities in general have much higher public/private transport ratios than in Australia (Mees 1994, Alexander 1998).

Lower rates of car *ownership* are not necessarily implied: what is more important is to effect changes in the pattern of vehicle *use* relative to urban public transport use. According to Moriarty (1998), 'a sustainable and equitable transport system would best be achieved by policies that increase the non-monetary costs of car travel, such as large cuts in travel speeds, which would spread the resulting reductions in oil use and carbon dioxide emissions more evenly across income groups'. Moriarty claims that such policies are potentially more potent than measures to promote more compact cities because 'feasible density increases on their own can only deliver minor benefits in reducing oil consumption or greenhouse gas emissions'. Nevertheless, the two issues of transport use and urban form are not clearly

separable. Spatial restructuring, to reduce the need for travel or average trips lengths, is a potentially significant contributory factor.

## Land-Use Planning

Heavy emphasis on private cars is directly linked to urban sprawl. There is a symbiotic relationship here: in a low-density urban area, private car travel is more necessary simply to get around, while a car-oriented society is apparently one in which low-density peripheral expansion can be permitted without incurring major problems of accessibility. It is a classic example of how the aggregation of individually rational decisions produces collectively irrational outcomes, in this case outcomes characterised by increased journey times, urban congestion and unsustainable patterns of energy use. However, there is no shortage of ways in which urban planning might obviate these outcomes. Urban consolidation, redeveloping cities into more compact higher-density forms, is currently in vogue in Australian urban planning, of course. It is highly contentious, its critics citing environmental and equity concerns as well as hostility from sections of urban society currently enjoying a generous use of land (see, for example, Troy 1996). More clustering of neighbourhoods into 'urban villages' linked by effective public transport connections is a variation on the theme (Newman, Kenworthy & Robinson 1992). My own view, developed more fully elsewhere (Stilwell 1999a), is that the more extensive use of land taxation can play a major role in promoting appropriate changes in urban form, although its primary justification is in terms of distributional equity rather than spatial restructuring. Uniform land taxation, with no exemptions for owner-occupied properties, could be a powerful device for capturing that part of the economic surplus that now accrues to landholders, especially owners of valuable urban sites. Simultaneously, it would provide an incentive for a more economical use of land, particularly by the holders of the most valuable urban sities.

Of course, significant changes in land-use patterns are difficult to make in existing cities, given the inertia which inevitably characterises the 'built environment'. That is one reason why regional *decentralisation* policies, putting resources into the development of new towns which can be constructed on principles of sustainability right from the start, warrant a renewal of interest. The free market will not deliver such outcomes: they require the explicit use of urban land-use and development controls by state and local governments. As 'Nugget' Coombs (1990) put it, 'the planning of cities, suburbs, towns and neighbourhoods could

contribute much ... if they were conceived as locations for living which enabled human activities to be conducted simply, with minimum expensive capital equipment, and economically, especially in relation to energy'.

# Housing

Housing form is also important in achieving sustainability, particularly because of its close connection with energy policy (Okraglik & Pollard 1995). The way in which our houses are constructed has a major bearing on the demand for scarce energy resources. Simple matters include the location of major windows in relation to the direction of the sun, the installation of insulation, and the use of ecologically appropriate building materials. The use of solar energy for heating is an obvious example regarding use of inputs. Much can also be done in waste management and more economic use of water to limit resource depletion and environmentally problematic outputs. There is no lack of relevant 'intermediate' technologies: their more widespread application depends on creating the necessary incentive structures, regulations and education programs to facilitate the changes in housing form and domestic practices. There seems to be one strong trend which pulls in the opposite direction — a trend towards larger houses for those with the capacity to afford such excesses. This 'edifice complex' is wasteful of resources and diverts investment from more productive economic purposes. It is the antithesis of a concern with economic and ecological sustainability.

#### Infrastructure

The quality of infrastructure is another key element in the achievement of sustainable cities. This has been one of the themes in the Healthy Cities movement, supported by the World Health Organisation over the last decade. As noted in the book on urban sustainability edited by Cedric Pugh, healthy city policies draw together private, government and public initiatives for the enhancement of 'the physical, mental, social and environmental wellbeing of the people who live and work in urban areas' (Harpham & Werna 1996). Health in this context can be widely interpreted as all aspects of cities which bear on the quality of life. Infrastructure for educational, medical, water, sanitation, and other community purposes must be provided in accessible locations and on a scale appropriate for local needs. Urban environments inevitably deteriorate if their low-income communities in particular have

inadequate access to such infrastructure. How best to finance it, of course, one of the key issues of the era (as discussed by Neutze 1997). So too is its management, particularly the issue of local community control. The appropriate inference, according to a reviewer of another chapter in Pugh's volume, is that 'city based communities require infrastructure, that obtaining this is important to sustainable and healthy urban environments, and that this process is a necessary but insufficient condition for urban sustainability, meaningless without economic production, health and sociability' (Stratford 1996).

#### Redistribution of work

Economic production, health and sociability require attention to how work is organised in cities. It is now a commonplace observation that work has become very unevenly distributed: a seemingly permanent pool of unemployment coexists with excessively long hours worked by many employed people. There is evidence that this is leading to health problems on both sides (Schofield 1996). Not surprisingly in these circumstances, there are recurrent calls for the redistribution of work opportunities and working time. Some argue that this is the greatest political economic challenge of the era – to reconcile the labour-displacing effects of technological change with the maintenance of social cohesion (Gorz 1999: Rivkin 1995; Stilwell 1999b). This may seem to be a rather separate issue from the other urban sustainability issues, but it is actually central. Economic sustainability requires that all members of society have access to opportunities for productive employment: otherwise the social costs, including the costs of social control over a growing 'underclass', become excessively burdensome. There are also grounds for believing that high productivity requires cooperative behaviour, and that this is more likely when there is a perception that its benefits are widely shared. Sharing the fruits of technology through the redistribution of work is an integral part of building sustainable cities. And, on a more pragmatic level, sharing the work so that each of us makes less journey-to-work trips could have a significant moderating effect on travel demand.

#### **Redistribution of Income**

Economic inequality is perhaps the most fundamental obstacle to sustainability. This has been increasingly recognised by environmental analysts and activists: that we will not get agreement to restructure economy and society on ecological principles unless we perceive ourselves to have a common interest in the outcome and similar costs of adjustment. Thus, issues of *social justice* are inexorably linked with ecological sustainability. The urban dimension of this concern is particularly significant, given that the current economic trends are producing more spatially divided cities. The basic causal factors arise from the operation of capital and labour markets. Executive salaries have been rising much more rapidly than wages and an increasing proportion of people have come to depend on incomes from part-time or casual employment. The resulting economic inequalities then rapidly translate into spatial inequalities via the operations of the land and housing markets. Executives and other high income groups are concentrated in prestigious residential areas – indeed, increasingly commonly in gated and private security-patrolled housing enclaves – separate from the poorer segments of urban society. The economic disadvantage of these poorer people is often compounded by their concentration in the least healthy and environmentally attractive localities (Friedmann 1997). In David Harvey's (1989) poignant phrase, the rich command space while the poor are trapped in it.

How to develop policies to redress such inequalities is an open question. There is no shortage of instruments, such as progressive income and wealth taxation, social security and 'social wage' expenditures, prices and incomes policies and measures to promote greater socio-economic mobility (Stilwell 1992:ch.8). There is no fundamental difficulty in linking the use of such instruments to policies with a more explicitly *spatial* dimension – such as job-creation and community development programs targeted to disadvantaged localities. Redistributive economic measures can thereby link up with objectives of social and ecological sustainability. The goals of producing more sustainable cities and more equitable cities are compatible, indeed mutually dependent.

## **Economic Structures, Spatial Inertia and Political Will**

Australian cities could be *exemplars* of the principles of economic, social and ecological sustainability. By international standards this continent is fortunate to have a generous endowment of land and natural resources relative to its population. It also has some social traditions which exhibit at least a superficial egalitarianism, rapidly being eroded but still providing potentially valuable foundations for social cohesion. There are diverse social movements variously concerned with social justice and environmental issues. Overseas visitors commonly admire a prevailing Australian life-style which emphasises social and

environmental goals alongside economic priorities. These attributes have been under severe stress in an era when 'economic rationalist' beliefs and practices have been ascendant. However, all is not lost. Building on these strengths could indeed be Australia's international comparative advantage. Developing sustainable cities, promoting more balanced regional development, fostering solar power and restructuring the economy to generate 'green jobs' industries are key elements in such a scenario.

There are significant obstacles to that sort of transformation. The reluctance of people to accept the implied trade-offs between income levels and environmental quality is commonly cited. The preceding reasoning questions the inevitability of such trade-offs. If Australia's comparative advantage is indeed in the development of its social and environmental assets then such a strategy could have direct economic benefits in terms of material living standards. By contrast, the current orthodoxy, which seeks to attract multinational investment by offering low wage labour and low corporate taxes, produces a 'race to the bottom' in terms of material living standards. To the extent that laxity of environmental regulations is also a magnet for certain types of resource-extractive and processing industries, there also tends to be a 'race to the bottom' in terms of ecological integrity. However, even conceding that there may be some income-environment trade-offs to be faced, there is growing evidence that these are more socially acceptable than 'economic rationalists' contend. Swedish surveys, for example, indicate a majority of the population favouring shorter working hours instead of a higher income. In the United states, the epitome of consumerist capitalism, one survey revealed 93% of people agreeing that 'the way we live produces too much waste' and 88% accepting that major changes in life-style will be needed to protect the environment (Sanne 1998:6).

The more fundamental obstacles to restructuring for sustainability are the prevailing economic structures — the institutions of capitalism, both nationally and internationally, which have a vested interest in profits at the expense of these broader social and environmental concerns. The commodification of society and nature, through the extension of these capitalist market principles, is the antithesis of the sustainability objective. So the key strategic question is whether some accommodation or compromise is possible? A reformist view would emphasise the use of market incentives in order to take account of broader social and ecological concerns. For example, increases in the prices of fossil fuels and other non-renewable resources could encourage some degree of substitution in systems of

production and consumption. The taxation system is one means by which these incentive structures might be modified. The Australia Institute calculates that the introduction of a carbon tax, together with other ecological tax reforms and the replacement of existing payroll taxes, could open up new avenues for economic development with net employment effects of up to 250,000 jobs (Hamilton, Quiggin & Hundloe 1997:44). Certainly, there are industries, ranging from solar energy production to public transport and waste-management, which have the potential to be both profitable and compatible with environmental goals (Australian Urban & Regional Development Review 1995). But there is a deeper tension between reformist prescriptions for ecological modernisation; and the expansionary dynamic of the capitalist market system which is profoundly anti-ecological (as argued by Altvatar 1993).

These are not purely abstract concerns: existing vested economic interests, to the extent that they are threatened by environmental policies, are bound to pose obstacles. More generally, any reforms that are perceived as a threat to consumerist values and practices, on which the whole apparatus of the modern capitalist economy depends, can be expected to be a focal point of political economic conflict. That is why the issue of *political will* is of such paramount importance. The influence of a relentless 'economic rationalism' on the policy agenda of both major political parties in Australia has been a striking feature of the last two decades. Only substantial and equally relentless pressure 'from below' by social movements seems likely to reverse this political orientation.

Even with the necessary political will, it is unrealistic to expect rapid results because of *spatial inertia*. Societies are going concerns: cities, once built, cannot be readily transformed. Spatial inertia arises because of the physical layout of the cities, the character of the existing housing stock, the energy supply systems and other aspects of the physical infrastructure. Where people live, how work and incomes are shared, and how consumption expenditures are allocated cannot be transformed by political fiat. However, the challenge to change these patterns of economic and social behaviour can be expected to come into increasingly sharp focus. It is sensible to think in terms of a commitment extending over at least a decade, if not a whole generation or more.

#### Conclusion

Whereas the twentieth century was dominated by the contest between rival political economic systems to generate the more spectacular rates of economic growth, we enter the twenty-first facing the question of which type of political economic system can best meets the sustainability test. On closer examination the test has multiple dimensions – economic, social and ecological. Fortunately, there are many technologies, policies and practices that could be adapted in responding to these challenges (see also Engwick 1992, Trainer 1995, Eckersley 1995 and Hamilton & Diesendorf 1997). More detailed research on the economic, social and ecological sustainability of alternative spatial forms is needed, going beyond the broad political economic observations developed here. This is a key aspect of contemporary urban research. Notwithstanding the current dominance of a more narrow 'economic rationalism' it can also be expected that a concern with sustainability will have an increasingly important place in policy debates. The issue of spatial structure – of the most appropriate patterns of urban and regional development – is one particularly important aspect. The most successful societies will be those that adapt their spatial structure and their patterns of production and consumption most rapidly to meet the complex requirements of sustainability.

#### References:

- Alexander, I. (1998), Community Action and Urban Sustainability: Hope for the Millenium, Urban Policy & Research Vol. 16, No. 1 March.
- Altvatar, E. (1996), The Future of the Market, Verso, London.
- Australian Urban and Regional Development Review (1995), Green Cities, AGPS, Canberra.
- Beale, B. & Dayton, L. (1999), Sydney Found to be Consuming 35 Times its Share of Resources, Sydney Morning Herald, 18 March.
- Beed, C. and P. Moriarty. (1992), The Car in its Second Century, The Journal of Australian Political Economy No. 29, May 1992.
- Coombs, H. C. (1990), The Return of Scarcity, Cambridge University Press, Melbourne.

- Eckersley, R. (Ed) (1998), Measuring Progress: Is Life Getting Better, CSIRO, Melbourne.
- Eckersley, R. (Ed) (1995), Markets, the State and the Environment: Towards Integration, Macmillan, Melbourne.
- Engwick, D. (1992), Towards an Eco-City: Calming the Traffic, Envirobook, Sydney.
- Fleay, B. (1995) The Decline of the Age of Oil, Pluto Press, Sydney.
- Friedmann, J. (1997), Workshop on Intercity Networks in the Asia-Pacific Region: a Report, Urban Policy and Research, Vol. 5, No. 3, September.
- Gorz, A. (1999), Reclaiming Work: Beyond the Wage-Based Society, Polity Press, Cambridge.
- Hamilton, C. & Diesendorf, M. (Eds) (1997), **Human Ecology**, **Human Economy**, Allen & Unwin, Sydney.
- Hamilton, C. Quiggin, J. & Hundloe, T. (1997), **Ecological Tax Reform**, Discussion Paper No. 10, The Australian Institute, Canberra.
- Harpham, T. & Werna, E. (1996), The Idea of Healthy Cities and its Application, in C. Pugh (Ed), Sustainability, the Environment and Urbanisation, Earthscan Publications, London.
- Harvey, D. M. (1989), The Condition of Postmodernity, Basil Blackwell, Oxford.
- Mees, P. (1994), Toronto: Paradigm Reexamined, **Urban Policy & Research**, Vol. 12, No. 3, September.
- Moriarty, P. (1998), Inequality in Australia Cities, **Urban Policy & Research**, Vol. 16, No. 3 September.

- Neutze, M. (1997), Funding Urban Services, Allen & Unwin, Sydney.
- Newman, P., Kenworthy, P. & Robinson, L. (1992), Winning Back the Cities, Pluto Press, Sydney.
- Okraglik, H. & Pollard, M. (1995), Sustainable Housing: Priorities and Challenges a Case Study of Australia's First Green Home, **Urban Policy and Research**, Vol. 13, No. 4, December.
- Rifkin, J. (1995), The End of Work, Deep Books, London.
- Sanne, C. (1998), The (Im)possibility of Sustainable Lifestyles Can We Trust the Public Opinion and Plan for Reduced Consumption, Working Paper No. 63, Urban Research program, ANU, Canberra, August.
- Schofield, D. (1996), The Impact of Employment and Hours of Work on Health Status and Health Service Use, NATSEM Discussion Paper No. 11, University of Canberra, March.
- Self, P. (2000), Rolling Back the Market: Economic Dogma and Political Choice, Macmillan, Basingstoke.
- Stilwell, F. (1992), Economic Inequality, Pluto Press, Sydney.
- Stilwell, F. (1999a), Land, Inequality and Regional Redistribution, Urban Policy & Research, Volume 17, No. 1, March.
- Stilwell, F. (1999b), Employment: the Political Economic Challenge, Global Business and Economics Review, No. 1., June.
- Stratford, E. Review of C & M. Chaguill, (1998), Towards Sustainable Infrastructure for Low Income Communities, in C. Pugh, op.cit: Urban Policy and Research, Volume 6, No. 3, September.

Trainer, T. (1995), **The Conserver Society: Alternatives for Sustainability**, Zed Books, London.

Troy, P. N. (1996), The Perils of Urban Consolidation, The Federation Press, Sydney.

Vanclay, F. & Lawrence, G. (1995), The Ecological Imperative: Eco-Social Concerns for Australian Agriculture, Central Queensland University Press, Rockhampton.

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