Australian Governments and Sustainable Housing
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Cities have the capacity to negatively impact on the environment in many ways, and therefore it is important for government at all levels to address these negative impacts. This essay explores the efforts made by the three levels of Australian government to make Australian cities more sustainable.

Key words: sustainability, urban consolidation, urban sprawl

Introduction

Cities can be defined as "spatial expressions of concentrated human activity" (Forster 1999) and as such have the capacity to negatively impact on the environment. Large numbers of people require large amounts of housing, and this housing creates unique impacts on the environment. These include the embodied energy in the building materials of the house, the physical space they occupy, the waste outputs they produce, and the energy that the people who inhabit them consume (in part influenced by the nature of the dwelling). The environmental impact a dwelling has is also influenced by its position relative to the needs of its occupants, for example the proximity to workplaces or schools can determine the amount of transport energy they will use in travelling to work, school, or elsewhere. The residential sector is the third largest end user of energy (NSW Government 1999) and therefore it is of prime importance to develop more environmentally sustainable housing for the expanding population of Australia, particularly in our big cities. This essay explores the various ways in which the three levels of Australian government (Commonwealth, State and Local) have attempted to develop sustainable housing. Each tier of governmental organisation is considered separately and their contribution is discussed. Many programs are joint initiatives by two or more levels of government and where this occurs it is explained, however for the most part each level of government is considered separately.

Commonwealth Government

Historically the Commonwealth government has played a minor role in housing in Australia (Forster 1999, p.148), generally following a "non-interference" policy. The Commonwealth influence on housing is largely through economic and taxation policies that have strongly influenced the nature of urban development (Parkin 1982, p.118). There have been some exceptions however. Between 1945 and 1949 the Labor government initiated the Commonwealth-State Housing Agreement which provided low interest loans to the states for housing projects such as public housing, slum clearance etc. (Parkin 1982, p.117). During the Whitlam government from 1972 to
1975 the Commonwealth again became involved in urban planning, establishing a Department of Urban and Regional Planning (DURP). This department funded programs of "urban renewal", increased sewerage networks and pursued policies of decentralisation with the "New Cities" program (Parkin 1982, p.124). Decentralisation is a policy that has attracted sporadic political interest since the nineteenth century with the Commonwealth and the states investing money at different times into programs encouraging decentralisation (CCSOD 1972). Decentralisation in this context means the preferential growth of country towns instead of the metropolitan centres, and was seen as a possible way of alleviating some of the problems faced by the rapidly expanding capital cities (DSDV 1975, p.58). Some of the measures used to encourage this included tax concessions for businesses in regional centres, trade agreements, freight concessions and training assistance (CCSOD 1972, p.13). Decentralisation as a policy has not succeeded to any considerable degree, with the exception of cities such as Albury/Wodonga and Bathurst/Orange. (Parkin 1982, p.124). The economic and social advantages in working and living in the capital cities seem to outweigh the numerous incentives offered by governments and the majority of growth is still occurring in the capital cities (Forster 1999).

Most recently the Commonwealth became involved in urban affairs in 1994 when the Department of Housing and Regional Development was established to investigate issues of microeconomic reform, social justice and environmental sustainability (Forster 1999, p.157). The "Better Cities" program was one of its major initiatives regarding housing development. It was initiated in 1991 and lasted until 1996 with over one billion dollars being invested in it (ALP 1999). The goals of the Better Cities program were to promote environmentally efficient subdivision and building, protect green belts, control the development of agricultural land and create stronger protection for native vegetation, key habitat areas and coastal and marine environments (ALP 1999). The results included inner suburb consolidation projects, the redevelopment of old housing trust areas, decontamination of public land and improvement to public transport networks (Forster 1999, p.157). An example of a project undertaken under the "Better Cities" banner is in Elizabeth, Adelaide. Here an old housing trust estate has been redeveloped with improved streetscapes and some medium density housing provision.

In 1991 the "Australian Model Code for Residential Development " (AMCORD) was released (NSW Govt 1999). This is a set of guidelines for encouraging improved residential development design and it is applicable nationally. This code provides recommendations on a wide range of issues regarding residential development including house orientation, lot size and disposal of stormwater. AMCORD has been an effective instrument towards developing sustainable cities with many new developments following the design principles featured. One such is the New Haven "Green Housing" development in Adelaide. The houses include features such as solar hot water heaters, photovoltaic cells for power generation and reuse of stormwater.

"Green Street" is another program that has been implemented by the Commonwealth Government in partnership with the State and Local governments as well as with the housing development industry (NSW Govt 1999). This program was established to help develop affordable housing that met the standards set by AMCORD. Numerous developments have resulted from this initiative, many pursuing the theme of urban consolidation (NSW Govt 1999).
State Government

The State government has the largest role in influencing housing development in Australia with its influence largely in the area of setting broad policy directions and controlling subdivisions through planning acts (DHRD 1995, p.198). In Victoria the State Government has established the "Victorian Codes for Residential Development" (VicCodes). These are a system of guidelines that provide a framework for sustainable residential design. This includes smaller lots, more accessible services and facilities, and the implementation of passive solar design (DHRD 1995, p.192)

One of the main policies all the State governments have implemented is one of urban consolidation. This involves increasing the population or numbers of dwellings in a given area (Minnery 1992, p.24). It has been argued that increasing residential densities can help in reducing urban expansion at the fringe and in reducing the costs and materials involved in supplying further infrastructure to the fringe (Brotchie et al 1995, p.45). It has also been shown that higher density residential designs can reduce interior heating and cooling costs by up to 26% and reduce transport costs by up to 57% (Minnery 1992, p.35). Increased use of public transport is largely held to be associated with higher densities and this has been shown to have the capacity to reduce emissions released from domestic vehicles (Cardew 1989, p.32). Another way that densities can be increased is by the redevelopment of public land within the city centre. Inner city commercial land is increasingly being redeveloped for housing, usually with medium to high densities (Minnery 1992, p.23). One example of this can be seen at Mile End in Adelaide. In this example, land that previously belonged to the railways was cleaned up and converted into medium density housing. These houses are situated on smaller than average blocks of land and are double storey, to maximise living area without extensive private yards. In some cases however, urban consolidation strategies have been less than effective due to administrative difficulties. While the State governments set the broad policy outlines, the Local government regulations often do not allow for the strategies to be carried out, (eg. maximum height requirements) and the result is often far from sustainable (Minnery 1992, p.65). There is also a lack of consistency in regards to the standards being set, and they vary from council to council and State to State (DHRD 1995, p.201). Other strategies for increasing residential densities fall under the jurisdiction of Local government and will be discussed under that heading.

Another way that State governments are encouraging sustainable building practices is by offering incentives to desirable behaviour. In Queensland, the State government is offering a subsidy to home-owners to install a solar hot water system instead of a conventional one (DEST 1999). The State government is also offering a rebate to people who are building homes that incorporate certain energy efficient criteria such as ceiling insulation, and energy efficient lights and shower roses (DEST 1999).

The State and Commonwealth governments have also promoted the development of "urban villages", medium density developments featuring advanced design principles. These typically feature a mix of residential, commercial and institutional uses, higher density and a range of housing types (Minnery 1992, p.54). They are designed to facilitate easy access to services, thus reducing dependence on the car. This is further enhanced when located near public transport (Newman 1999, p.99). An example of this kind of development is the New Brompton Estate in Adelaide. The State
government in 1989 initiated the development to demonstrate that well designed housing in small allotments could still deliver a high quality of life to its residents (University of South Australia 1999). The density is relatively high, at 26 dwellings per hectare and features an aquifer storage system to capture and reuse all the stormwater produced on the site (UniSa 1999).

A further way in which the State governments are encouraging development in the urban centre is by discouraging development at the fringe. This is being done by increasingly requiring developers to pay for the provision of infrastructure such as water pipes, sealed roads and sewerage connections which were previously provided for by the government (Brotchie et al 1995, p.78).

**Local Government**

The most significant influence Local governments have over housing policies is through local building and land use regulations (Orr 1989, p.12). Urban consolidation is also pursued at the local level and one of the most basic ways to increase residential densities is reduce the size of new housing blocks. This is under the jurisdiction of Local government and over the last 20 years minimum lot sizes have fallen from 800m$^2$ to 300m$^2$ in some cases (AMCORD 1990). The zoning of land is also the responsibility of Local government and since the 1980's dual occupancy has been part of the planning strategy for the entire metropolitan area in most capital cities in Australia except where the block size is too small (DHRD 1995, p.65). Examples of this can be seen at Mile End in Adelaide. Existing large blocks have in some cases been subdivided and another dwelling has been built in the backyard of the original house. The effectiveness of these policies can be reduced however as a result of a number of reasons. Increasing residential densities are often unpopular in the districts where the development (often multi-storeyed) is to take place and the existing residents are often concerned about loss of privacy, increased traffic and reduced visual amenity (Orr 1989, p.87). As a result Local governments can be reluctant to rezone land to permit medium to high density (Orr 1989, p.90). Another reason that urban consolidation strategies have failed to meet the expectations made of them is due to declining household sizes (ABS 1996). This means that while there are more dwellings in some areas as a result of urban consolidation policies, the numbers of people have not risen significantly (see Table 1).

Gentrification is a process Local and State governments have encouraged in an effort to increase population densities in inner city areas. Gentrification involves the renovating of older run down suburbs in the inner city to make them more appealing for people to live in (Brotchie et al 1995, p.68). In some cases incentives are offered to people to move into and develop the inner city areas. In Melbourne this has taken the form of a stamp duty concession applicable to developers and buyers who purchase inner city property (Minnery 1992, p.43).

Local Agenda 21 is a set of initiatives endorsed by the Commonwealth government but implemented by Local government. This program involves each local council in Australia coming up with a plan or "agenda" for reaching sustainability (Forster 1999, p.141). This has lead to many councils incorporating energy efficiency policies into their Development Control Plans (DCP). These policies include compulsory
installation of solar water heaters, appropriate orientation of houses and waste minimisation (NSW Government 1999).

**Conclusion**

The Australian government at all levels has tried to make housing more environmentally sustainable through a mixture of incentives, pricing strategies and legislation. It is difficult however to determine the success of these policies. There have been some increases in residential density through urban consolidation programs, but whether or not it is sustainable is debatable. Higher densities do not automatically reduce transport emissions unless improvements are made to public transport systems (Minnery 1992, p.74). "Urban Village" type developments definitely offer improved environmental performance, but some consider that unless adopted on a broad scale they are unlikely to significantly alter the sustainability of urban housing (Brotchie et al 1995, p.118). There are also problems in the political mechanisms in place for implementing policies. Often there are conflicts of interest between departments or levels of government, leading to inefficiency in the realisation of policies (Parkin 1982, p.65). What is needed is the implementation of a comprehensive, holistic set of strategies and targets that complement one another, from the Commonwealth level down to the local level. Despite this, maybe the most important thing that needs to be addressed is people’s attitudes and values. In spite of the achievements of governments, car use continues to rise and most Australians still prefer to live in a detached family home on a separate block. Although the policies that have been implemented have no doubt made some improvement, further efforts must still be made to make our housing truly sustainable.

**References**


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