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"SUSTAINABILITY AND HOUSING
More than a roof over head"

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SUMMARY

Housing continues to be critical to how Australians secure their future. Sustainability is defined as a global process that also tries to help create an enduring future where environmental and social factors are considered simultaneously with economic factors. Principles are used from the Western Australian State Sustainability Strategy to help define what sustainability could mean for housing. These are distilled into three major tasks:
• Ensuring there is a 'roof overhead' for the housing disadvantaged,
• Ensuring housing is more eco-efficient, and
• Ensuring housing is well located or is part of a project to improve locational amenity.

The housing disadvantaged are defined in terms of the housing stress being faced by:
• Aboriginal people (especially those in remote areas),
• people requiring public housing (this housing stock has not grown in the past decade and now needs a 60% increase to meet requirements),
• people requiring private rental assistance (this subsidy is rapidly falling behind the market with increases in the proportions of people spending more than 30% of their income on rent, eg Sydney has gone from 67% of low income renters in housing stress to 81% in ten years),
• people looking to buy their first house (despite the First Home Owners Grant there are less owning or purchasing a home, dropping from 72.4% in 1988 to 69.4% in 2000).

Without intervention there will be 1 million in housing stress by 2020 at current trends.

[1] Written text for 2002 Barnett Oration, Melbourne, 31st October. The presentation on the evening will be a more visual presentation of the challenges and options for the future.

A new Housing for Sustainability Scheme is suggested which can be based on redirecting the First Home Owners Grant (FHOG) into a more targeted program to assist each of the above housing groups by seeking to advantage:
• remote areas through aboriginal housing with strong links to the development of new natural resource management enterprises,
• rural areas through community housing that could assist the reversal of decline in many country towns by linking these projects to rural sustainability enterprises, and
• urban areas requiring revitalisation through 'urban village' projects.
This Housing for Sustainability Scheme could be established using the $0.8 billion/annum available from the Federal Government's FHOG in partnership with the private sector, state and local government, to become more like a $5 billion project.

The Housing for Sustainability Scheme would also be more likely to achieve these goals and create the required partnerships if it helps to address the other two areas of housing sustainability: eco-efficiency and location.

Eco-efficiency in design and construction is rapidly being adopted by governments worldwide and by many wealthy households. Making it mainstream in social housing is a challenge though it is being demonstrated in some innovative projects. The conflict over whether there are extra costs is being resolved by seeing how other 'essentials' such as double car ports and the size of new homes is an option some would trade off for considerable reductions in on-going energy, water and travel costs. In life cycle terms eco-efficiency is clearly cost effective. The new Housing for Sustainability Scheme could help to mainstream eco-efficiency by:
• ensuring it is part of all public housing,
• requiring all CRA-based rental accommodation to meet minimum eco-efficiency standards or their eligibility for tenants to receive such funds should be revoked, and
• building it into all the new revitalisation partnership projects for community housing and first home owner schemes.

Location defines access to most important urban services. New evidence shows that even when adjusting for the different needs of people at various stages in life, amenity is still strongly associated with distance from the city. This should impact on locational policy decisions and particularly the selling of well located public housing. There is also evidence that some sub-centres are generally assisting in providing access to amenity and employment for their surrounding suburbs. Such inner locations and sub-centres are rapidly becoming the choice of the wealthy. It is important to target the location of new and revitalised urban centres in those corridors where services are poor, especially where new economy jobs can be facilitated through urban design. A Housing for Sustainability Scheme can ensure that such urban design occurs in areas where locational equity needs to be improved as well as helping to create new jobs and new housing in a less car dependent way.

The integration of housing and sustainability shows the value of sustainability in focusing a rationale for extra housing funds and the value of housing as a driver for sustainability.

INTRODUCTION

It is a fundamental value of Australian society that everyone should have a roof overhead. Homelessness is an outrage. But homes are also deeply significant as a source of meaning, wealth and status in Australian culture. Where nearly every other symbol of success is treated with healthy disrespect, the provision of a good house is central to the Australian dream of a good future.

This dream is constantly under threat and Australian politics is again having to re-invent a system to ensure the dream is feasible for everyone. But Australians have other dreams and today we are part of a global dream to try and achieve a more sustainable future for the earth. This lecture will argue that these dreams are not incompatible and indeed they need each other. The desire of Australians to secure a good future requires us to do more than provide a roof overhead.

SUSTAINABILITY – THE DIALOGUE FOR OUR ERA

Sustainability as a global idea was first dramatised by the UN's World Commission on Environment and Development report 'Our Common Future' in 1987. This commission had been set up to resolve a fundamental conflict of global politics between:

- Ecologists who saw development as the cause of global ecological collapse, and
- the poor of the world, who needed development to meet their basic needs for food, shelter and health.

Thus the resolution achieved through defining sustainable development was that:

- **Development is still required for the poor to meet basic needs**: Indeed without addressing this the earth is threatened as poverty, especially in the third world, leads to misuse of natural resources and continued population increase.

But…

- **Development must change in character for the wealthy world and lead to large reductions in ecological footprint**. The goal of factor 4 (or even 10) reductions in resources use (while increasing wealth) to achieve this has been set.

International conferences, national strategies, local strategies and much talk across all sectors have tried since to work out what this all means.

Our Western Australian State Sustainability Strategy is part of this global movement. I want to use our Strategy to define a base for examining sustainability and housing, not because we have it all worked out but because it has created some principles to work with and is perhaps the most comprehensive attempt to pursue sustainability in Australia in recent years.

The Sustainability Strategy suggests that sustainability can be defined as *'Meeting the needs of current and future generations through simultaneous environmental, social and economic improvement'*. This is a simple idea but one that is very difficult to do as our professions, government agencies and modes of thinking do not easily allow us

to integrate such matters, but indeed structure us into silos which we defend vigorously. Housing is no different. Strategies are needed to get behind our thinking and institutions to allow greater integration of these goals.

Our Strategy is an assessment of what sustainability means for 42 areas of government. It was based on research by students and academics who voluntarily wrote 43 case studies on sustainability innovations presently occurring in Western Australia and 18 background papers detailing how other parts of the world are addressing sustainability in various areas. We had a substantial public process and all agencies made submissions on what they thought sustainability meant for them. Our Housing and Works Department was a particularly helpful group who worked hard to try and see what they should be doing (Department of Housing and Works, 2002).

There have been two interesting responses to the Strategy since its release on September 13th:

a) The media did not know what to do with it and gave it very little coverage at all, but
b) The interested public has been overwhelming in its initial response. There were 17,000 copies of the 234 page Strategy downloaded in the first 3 days after its release. There are now 8,500 hits on our web site daily, 33% of them from the United States.

Perhaps this reflects the fact that sustainability as a concept is still a work in progress by its very nature. John Peet (2001) says that the word is not easily pinned down as it is 'dialectical', i.e. like hope and love, sustainability becomes meaningful only when it is applied, rather than analysed. It means most when it is applied to a region or community, to energy or housing.

Sustainability is therefore still confusing for most people (including the media) as it is still largely developing as governments, communities and industries explore what it can mean for them. Global and local politics is ensuring that it is not going to go away. The concept is essentially a political issue, and as Roger Bradbury suggests, it is subversive:

> "Sustainable development is not a motherhood issue at all, it is a subversive issue. This is a debate about how we understand difficult things… It is the Galilean issue of our day."
> Bradbury (1998).

Bradbury suggests that Galileo's seventeenth century dispute with the Church's worldview is similar to the dispute today with fundamentalist economics. Sustainability, he suggests, is subversive because it recognises that the world is indeed much more complex than reductionist models of economics based on competition and simplistic markets. Sustainability demands much more integrated approaches to the future.

We have not as a civilisation been able to easily bring environmental and social factors into mainstream decision making other than through the political processes of heads of government and their cabinets. These decision-makers have long seen the need to integrate these three aspects of life, however politicians don't get much help

at how to bring together the various claims of government agencies that represent these different voices. Thus we are urged to produce 'whole of government policies' or as the British say we need 'joined up government'.

All our professional disciplines, all our government decision-making structures, the way we do research, the way we teach, leans towards the creation of separate bodies of knowledge and information. Economic silos have precedence because we don't know how to integrate them with the others and they have done the best job at persuading politicians that their silo alone can guarantee wealth and prosperity. The undoubted truths that economic assessments contain need to be merged with environmental realities and social priorities. These other perspectives are also about achieving a good future and through global and local politics can no longer be neglected or bolted on afterwards. By integrating these perspectives we can enable new decision-making approaches, new options for politicians, business and the community.

This is the subversive nature of sustainability. It is attacking the heart of how we make decisions. Yet, it is also a motherhood issue as decision makers - whether they be politicians deciding about a major project or families choosing a house to buy - know all about the need to integrate economic, social and environmental factors. They just need more options to show how this can be done better – options which do indeed take the realities of the earth and the poor, seriously.

As part of the Western Australian State Sustainability Strategy we have set out 11 principles for how we can begin to address sustainability. Table 1 shows the 7 foundation principles and the 4 process principles that have been used to create our Strategy. This is of course only a first step in a long journey but at least we now have a sense of what is important.

Table 1

Sustainability Principles of the WA State Sustainability Strategy

Foundation Principles

Long Term Economic Health

Sustainability recognises the needs of current and future generations for long-term economic health, diversity and productivity of the earth

Equity and Human Rights

Sustainability recognises that an environment needs to be created where all people can express their full potential and lead productive lives and that dangerous gaps in sufficiency and opportunity endanger the earth.

Biodiversity and Ecological Integrity

Sustainability recognises that all life has intrinsic value, is interconnected and that biodiversity and ecological integrity are part of the irreplaceable life support systems upon which the earth depends.

Settlement Efficiency and Quality Of Life

Sustainability recognises that the earth can only adjust to a more balanced state if the ecological footprint of settlements is reduced (through less material and energy

demands and reductions in waste etc), and quality of life is simultaneously improved (through health, housing, employment, community etc).

Community, Regions, 'Sense Of Place' and Heritage
Sustainability recognises the significance and diversity of community and regions for the management of the earth, and the critical importance of 'sense of place' and heritage (buildings, townscapes, landscapes and culture) in any plans for the future.

Net Benefit from Development
Sustainability means that all development, and particularly development involving extraction of non-renewable resources, should strive to provide net environmental or conservation benefit and net social and economic benefit for future generations.

Common Good from Planning
Sustainability recognises that planning for the common good requires equitable distribution of public resources (like air, water and open space) so that natural carrying capacities are not exceeded and so that a shared resource is available to all.

Process Principles
Integration of the Triple Bottom Line
Sustainability requires that economic, social and environmental factors be integrated by simultaneous application of all the principles of sustainability, and seeking mutually supportive benefits with minimal trade offs.

Accountability, Transparency and Engagement
Sustainability recognises that people should have access to information on sustainability issues, that institutions should have triple bottom line accountability on an annual basis, that regular sustainability audits of programs and policies should be conducted, and that public engagement lies at the heart of all sustainability principles.

Precaution
Sustainability requires caution in applying these principles, avoiding poorly understood risks of serious or irreversible damage, designing for surprise and managing for adaptation.

Hope, Vision, Symbolic and Iterative Change
Sustainability recognises that applying these sustainability principles as part of a broad strategic vision for the earth can generate hope in the future, and thus it will involve symbolic change that is part of many successive steps over generations.

These principles will now be applied to housing and then I will suggest what they mean for three main housing policy tasks in this era of sustainability.

SUSTAINABILITY AND HOUSING: THE PRINCIPLES

Sustainability, based on the 11 principles outlined by the WA State Sustainability Strategy, can be applied simply to housing to mean:

Principle 1: Long Term Economic Health

Housing is central to how the long-term future of the economy is being created. Housing has a 50 to 100 year operating life and thus we must consider all relative factors in ensuring long terms needs are considered.

Principle 2: Equity and Human Rights

Current and future needs for the housing disadvantaged need to be a high priority for development.

Principle 3: Biodiversity and Ecological Integrity

The housing agenda cannot afford to neglect the source of its materials, eg, structural timber should not be from old growth or vanishing rainforests. There needs to be a far more ecologically sympathetic housing sector.

Principle 4: Settlement Efficiency and Quality of Life

The urban planning context is that housing design, construction and resulting urban form needs to be more eco-efficient (ie less resource consuming, less waste producing) and yet simultaneously provide better quality of life outcomes.

Principle 5: Community, Regions, 'Sense of Place' and Heritage

Critical social dimensions of housing need to be considered so that people are part of a community and can belong to a 'place'. Car-dependent housing is increasingly seen as anathema to this.

Principle 6: Net Benefit from Development

All new housing developments need to be assessed by the criteria of 'net benefit' that applies to environmental, social and economic criteria. The ancient Athenians used to pledge: 'We will leave this city not less but greater, better and more beautiful than it was left to us.' We should aspire to no less in our housing projects.

Principle 7: Common Good for Planning

Sustainability requires common good outcomes from housing such as open space, community services and public transport.

Principle 8: Integration of the Triple Bottom Line

Reporting and accounting as well as assessment of housing, needs to show how the triple bottom line objectives are being met.

Principle 9: Precaution

Flexibility in housing is needed to enable different future options to be achieved as householders age and the economy changes. How an area can cope in an oil-constrained world is also an agenda that cannot be neglected by housing.

Principle 10: Accountability, Transparency and Engagement

Engaging the public in housing choices needs to go beyond project homes and their fashions, and beyond simplistic debates on infill, to community–based visions of how affordable and appropriate housing can be provided in each area.

Principle 11: Hope, Vision Symbolic and Iterative Change

Housing projects that are more sustainable need to be created so that the first steps can be demonstrated towards long term visions.

Some of these principles will be further developed by concentrating on three key outcomes or tasks of relevance to these principles:

- **Ensuring a 'roof overhead' for the housing disadvantaged;**
- **Ensuring housing is more eco efficient, and sustainable in design and construction; and**
- **Ensuring housing is well located or helps to create better locational amenity.**

SUSTAINABILITY AND HOUSING: THE TASKS

Task 1: Ensuring a 'Roof Overhead' for the Housing Disadvantaged

The first responsibility of sustainability is to ensure that needs are being met for current and future generations. With housing this must focus on the housing disadvantaged.

The Housing Disadvantaged
The housing disadvantaged in Australia can be summarised in terms of Aboriginal Housing, Public Housing, Rental Assistance Housing and First Home Owner Housing.

- ***Aboriginal Housing***
  Remote aboriginal communities are our own third world. The Australian State of the Environment Report 2001 says:
  "The Current in adequacy of housing and settlement infrastructure has been clearly identified as making a significant contribution to the atrocious standards of Indigenous health. … The Indigenous housing backlog identified by politicians in the early 1970's remains elusively out of reach."
  Newton et al, 2001, p154

The problem stretches beyond remote areas where the issues are dramatic and desperate, to all urban settlements where chronic housing disadvantage has been demonstrated (Jones, 1999, Memmott and Moran, 2001). Although there was an increase in Aboriginal home ownership between 1991 and 1996 from 28% to 31% this is a long way from the Australian average at 70%. There will need to be a growing and focussed budget and partnership program to shift the housing disadvantage of Indigenous people in Australia.

- ***Public Housing***
  Over 90% of residents and applicants in public housing are recipients of social welfare payments. In most states and territories the gap between applicants and available public housing has grown. In 1990, there were 195,000 on waiting lists and by 1997 there were 221,000. The public housing stock in Australia is 386,000 units or 5.1% of housing. Thus there is a shortage that is around 60% of the present stock of public housing (fig 1).

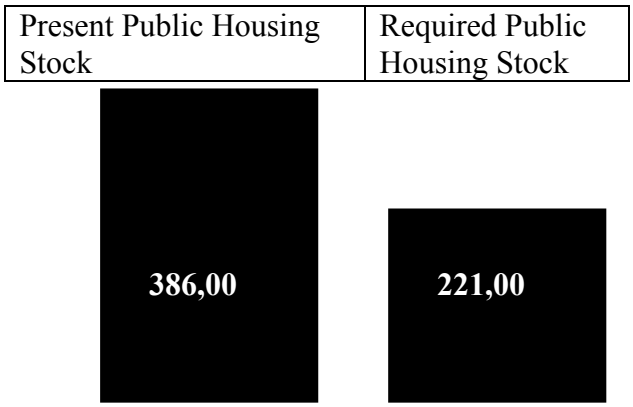


Fig 1 Present and required public housing in Australia

Building extra public housing has been largely stalled as capital funding has declined. Over the last six years, public housing funding under the Commonwealth State Housing Agreement (CSHA) has not been indexed to inflation and has also been subject to an 'efficiency dividend' (read: cut) of 1% per annum. As a result, there has been a real fall in Commonwealth expenditure on public housing of 15% since 1996/97.

Significant redevelopment of public housing estates has been occurring in order to overcome the ghetto effect that has plagued such estates and caused major maintenance and issues of social stigma. It is also a chance for long-term tenants to purchase a house. On most criteria, those areas that have redeveloped have been successful and few would suggest building such monochromatic estates again. The WA public housing estate through its New Living program has been largely cleared of its maintenance backlog though NSW in particular still has a substantial backlog.

However, spending money on maintenance has meant very limited growth in public housing stock numbers. As a result, public housing has reached a mere 5% of total housing stock in Australia. At the same time, house prices and rents have consistently

increased faster than incomes, resulting in a reduction in housing affordability and a greater need for public housing (see Wulff & Yates with Burke, 2001).

The building of public housing must increase if those in need of public housing are to be assisted. There is little likelihood of people on social welfare being able to have a roof over-head in any other way than through public housing. A 60% increase in public housing stock will not meet this need and yet in the past decade construction of public housing has hardly increased. A substantial task remains and I believe needs to be addressed through a long-term vision for public housing that is part of a sustainability strategy for Australia.

- ***Rental Assistance Housing***
  Over a million people receive rental assistance in Australia in order to try to keep them out of housing stress (more than 30% of their income going on housing). The recent AHURI report on affordable housing by Berry et al (2002) has shown that in 1996 81% of low income Sydney renters were in housing stress compared to 67% in 1986. The comparative figures in Melbourne were 74% cf 61% and in Adelaide were 76% cf 63% (Berry et al 2002). The size of this group of private renters (and hence the amount of support) depends on the extent to which public housing and first home-owners are growing. If both are under pressure (as is shown here) then the amount of money provided in assistance to private renters should have grown, but it has not been doing this. Therefore there has been an increase in housing stress as people who rent are forced to spend an increasing proportion of their income on rent, even with the rental assistance. Thus one third of Australian CRA recipients still suffer housing stress (Productivity Commission, 2002).

- ***First Home Owner Housing***
  Low interest rates and the First Home Owners Grant (FHOG) have encouraged young families to step into homeownership. However, there has been a decline in people owning or purchasing a house from 72.4% to 69.8% between 1988 and 2000 (Newton et al, 2001). This is seen to be due to various structural and social changes (Wulff and Yates, 1999). There are also problems with the FHOG actually just increasing the price of housing, rather than increasing the number of houses available for this part of the market. If this area does not grow then the lower end of the housing market receives extra pressure on it, hence government assistance is often needed. For example, the WA government has its own first home-owners scheme called KeyStart which includes a safety net for marginal households unable to meet their repayments due to illness etc. The AHURI report on affordable housing showed that no low income people could afford to buy an averaged price house anywhere in the cities they studied, i.e. Sydney, Melbourne or Adelaide (Berry et al 2002). Various ideas are thus being promoted for how to increase the flow of private sector funds into this part of the market though this will do very little for the housing disadvantaged in the lowest two quintiles of household income.

Together these groups constitute the housing disadvantaged or the social housing market. In equity terms these people have housing needs requiring government intervention. Without intervention Berry et al (2002) say at current rates of increase there will be over 1 million in ‘extreme housing stress’ in Australia by 2020.

A New Commonwealth State Housing Agreement

The intervention by government in the housing market is currently under close scrutiny as the CSHA is reviewed. The original need to house returning service men is not there but the housing disadvantaged remain. Would Oswald Barnett have allowed the current situation to develop or would he have intervened?

As pointed out above, Commonwealth funding for social housing under the CSHA has declined in real terms by 15% over the last six years. A new CSHA is required as part of a new housing vision that can establish a clear priority for the housing disadvantaged. Various new mechanisms have been proposed and this paper will suggest how sustainability provides a new rationale for how housing can be revived in Australia. I believe that sustainability is a concept that Os Barnett would have embraced and would have pursued to its practical solution in a new housing policy based on the values he espoused (Walker, 1995).

I am suggesting that a new direction needs to be found for housing through a re-evaluation of the First Home Owners Grant (FHOG). The theory of providing assistance for first home-owners through the FHOG is that this will help the total housing disadvantaged by pulling people out of rental assistance and public housing (as in fig 2).

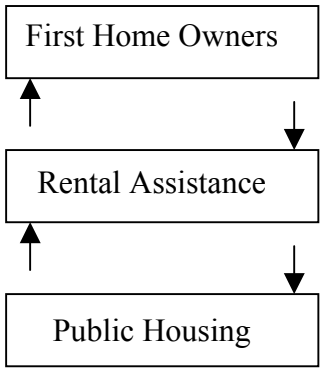


Fig 2. Links between first homeowners, rental assistance and public housing.

However, this will only work if the FHOG helps to create an extra supply of affordable housing. The evidence is that it has mostly only increased the real estate value of housing (Wood, 2002; Yates, 2002). It is a demand incentive which has been of advantage to all other home-owners (and real estate agents) and only marginally to the housing disadvantaged. It is time to rethink the FHOG in terms of sustainability.

The AHURI study on affordable housing (Berry et al, 2002) has analysed the best options for involving a partnership between the Commonwealth, States and the private sector (particularly superannuation funds), to create extra housing. These options using debt or equity all have their particular niche and target and the importance of partnerships with the private sector has been highlighted. However none of them seem to be providing a systematic approach to housing that can help the major need to provide all elements of housing. This is particularly evident for those in the bottom two quintiles of household income who depend on private and public tenancies.

A new vision is needed for how we can assist the housing disadvantaged. I am suggesting that we may be able to do this by redirecting the First Home Owners Grant.

The FHOG is part of a $3.5b commonwealth approach to housing (Table 2)

Program	Approx Annual Allocation
Commonwealth State Housing Agreement (CSHA)	$1.0b
Commonwealth Rent Assistance (CRA)	$1.7b
First Home Owners Grant (FHOG)	$0.8b
Total	$3.5b

Table 2. Commonwealth expenditure on housing.

The NSW Government proposal to change the CSHA to all rent assistance (CRA) based on the number of units available would advantage them at a time when they face huge pressure just to maintain their stock. However other states would suffer including WA (and Victoria) which would be reduced to something around half their present housing allocation (see Figure 3)

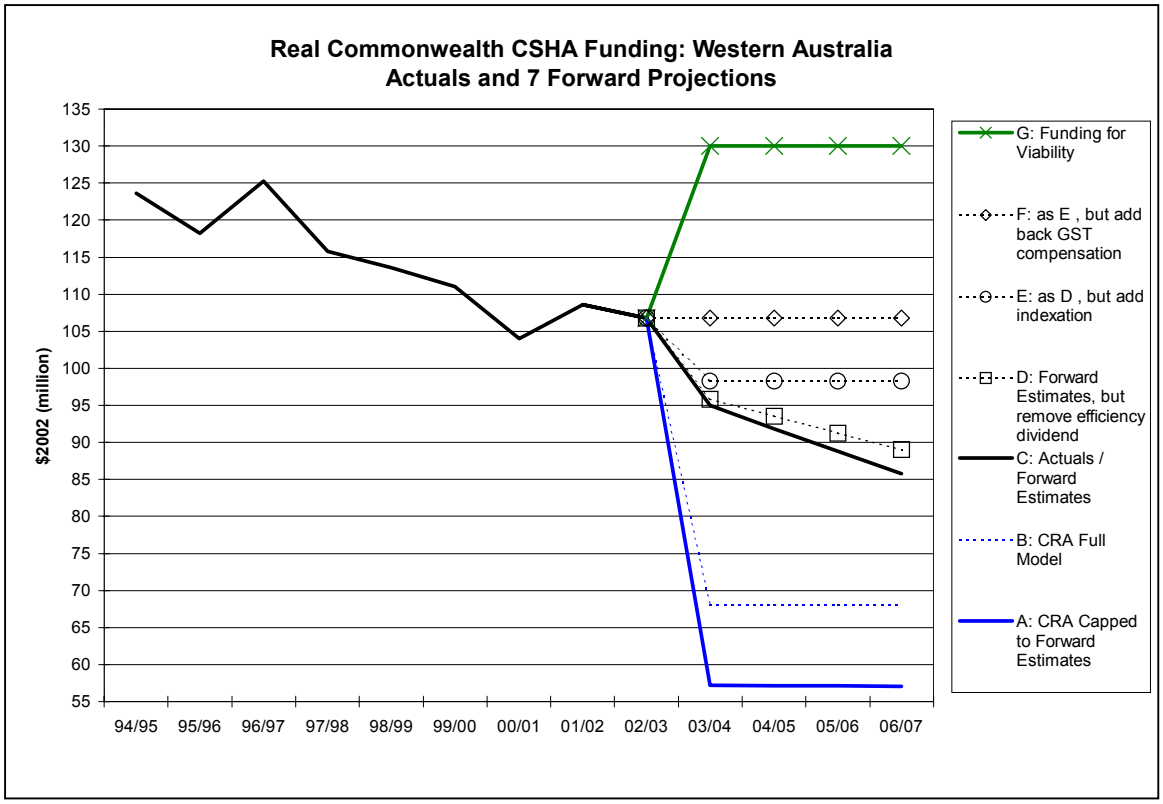


Fig 3. Real Commonwealth CSHA Funding: Western Australia Actuals And 7 Forward Projections (source: Office of WA Minister for Housing and Works).

This mechanism of transferring to CRA even if it met current maintenance requirements, is not going to meet the housing vision required as it does not increase

supply for the housing disadvantaged and is not part of a systematic or comprehensive approach, and is certainly not laying any claim to sustainability.

The First Home Owners Grant has attracted some significant criticism for being:

- Available to **all** income groups (wealthier home builders add it on thus simply adding this to the value of the house);
- Applicable to **all** homes including purchase of existing properties (again simply adding to an increase in value of the property); and
- Not targeting or assisting **any other** elements of government policy.

The result of this program is that in addition to assisting some people into home ownership that may not have been able to before, the general market of house values has been raised.

Thus if the FHOG is hardly assisting the affordable housing system and is not targeting any broader government goals, then it would appear to be time to restructure it.

The FHOG should be modified into a Housing for Sustainability Scheme with a simultaneous goal of creating more options for the housing disadvantaged and demonstrating broader sustainability goals. It should be used to target each aspect of housing disadvantage, to demonstrate eco-efficiency and as well to be targeted into locations of need

The elements of this proposed program are set out as the basis of the rest of this paper.

The new Program could be created by cutting the eligibility of all with a household income above $75,000 and for a general application to any existing properties. This would save around $0.5b. The other $0.3b should be available to first home-owners but only if they use it in the targeted areas as set out below. This would mean that the CSHA remains as the base program for public housing (with its tied allocations to aboriginal housing, community housing and crisis accommodation), and the CRA remains as a base for rental assistance. The FHOG is reallocated to the Housing for Sustainability Scheme which as shown below can be used to create a range of new housing programs (and as shown below can be still made available to first home owners as long as they are in the targeted areas). The overall amount of Federal housing funds stays within the present $3.5b allocated to housing by the Commonwealth (see Table 3).

Program	Approx Allocation
Continuing…	
CSHA	$1.0b
CRA	$1.7b
New	
Housing for Sustainability Scheme (HSS)	$0.8b
Total	$3.5b

Table 3: Commonwealth housing allocation under the re-allocated FHOG to a new Housing for Sustainability Scheme

One of the important features of a targeted Scheme like the HSS as outlined below, is that it can be used to generate extra funds through partnerships. Berry et al (2002) has set out the mechanisms and sources for these funds. Substantial funds for example can be tapped from Superannuation where there is an increasing need to demonstrate sustainability outcomes from their investments. The Scheme set out below suggests how this can be done so that housing can be boosted considerably by this linkage. **The possibility is there for the Housing for Sustainability Scheme to use its $0.8b and raise it to around $5.0b through partnerships involving state and local government and the private sector.**

Housing for Sustainability Scheme
The new Housing for Sustainability Scheme can be targeted not only for the housing disadvantaged but to regions and places requiring sustainable development. It can involve many aspects of sustainability that are languishing in other parts of government. I suggest it would have the following features:

1. ***Remote Aboriginal Housing for Sustainability Program.***

   A major commitment to new homes in remote areas for aboriginal communities is required. The uncertainty about the presence of many remote aboriginal communities is being removed through the Native Title process. With land and tenure comes the possibility of genuine economic ventures that have significant potential to achieve sustainability goals in these remote areas.

   Very few non-indigenous Australians want to live permanently in remote locations. Aboriginal people with a strong 'sense of place', a story that means they belong in such remote areas, need to be encouraged and equipped to help with the management of these vast regions. Fire management, feral animal and weed management, tourism, mining and pastoralism are all needing aboriginal people.

   It is time to provide the kind of housing assistance program for those 'returning to country' as was provided for those returned soldiers after the second world war. This is a fundamental issue of equity and human rights. It can also be given a good rationale in terms of environmental management and economic management for the remote regions. Thus housing can be linked in to the development of Indigenous enterprises in natural resource management. FHOG payments can be made as part of this Program.

2. ***Regional Housing for Sustainability Program.***

   Agricultural regions inland are also struggling to hold people. In most of these areas the local economy is suffering not from a lack of wealth creation but from a lack of economic diversity. There are theories about the links between the economic monocultures of regional areas and their social monocultures (Jacobs, 1984).

   One way to encourage greater social diversity and hence potential economic diversity is through targeted housing programs designed to make the most of the new sustainability values in rural areas.

A number of Eco Villages have been developed in Australia (and elsewhere) as experiments in rural living. These experiments have demonstrated that intentional communities with a sustainability theme can provide innovation and creativity to a local area (Newman and Kenworthy, 1999).

It is suggested that State Government in partnership with local authorities be given funds to develop with community associations, a range of Community Housing projects in rural areas. Particular targeting of groups that want to create local employment should be a part of such projects. Invariably such employment will be related to new ways of solving the problems of natural resource management in rural areas. The FHOG can be allowed on properties that are part of such a Program.

Rural and regional sustainability can be given a boost with a targeted housing strategy that taps the desire for community and our roots in the Australian earth in new ways.

3. Urban Revitalisation Housing for Sustainability Program

There are real problems emerging in some parts of Australian cities. Middle and outer suburbs that have passed through their first development phase are sometimes facing significant social and economic decline. Inner suburbs across Australia have had a very successful rejuvenation over the past 20 years, reversing the inner area decay of the 1960's and 1970's. These areas were the subject of large government assisted regeneration through programs started first by the Whitlam government (through Tom Uren) and then by the Hawke-Keating governments (through Brian Howe). There is no reason why a new urban revitalisation program could not be a bipartisan project; President Bush has a similar program in the US for 'Brownfields regeneration'.

The middle/outer suburbs in Australia need a "Better Cities" program that can focus on issues of urban design, infrastructure, community development, and public-private partnerships for new housing. The targeting of these areas can enable them to receive the focus and boost that led to the flowering of the inner suburbs. In particular the location of most of the new knowledge/services economy jobs has been in rejuvenated inner areas. One key part of the rejuvenation Strategy for middle and outer areas must be the building of focussed, mixed-use centres that can act as employment generation areas in the new economy.

In these designated urban revitalisation areas FHOG should be allowed on existing homes to enable their funds to be directed into the revitalisation process.
Many middle and outer suburbs are increasingly a different kind of city within the globally focussed Australian urban environment. This is pursued in the latter part of the paper. These areas can be assisted back into a more equitable and sustainable place in our cities through a targeted Housing for Sustainability Scheme sub program.

With a new program of Housing for Sustainability underway that targets housing disadvantaged in remote, rural and urban Australia, the issues of sustainability are still only part solved. The link to regional planning and economic development is made but there are other important links that are necessary as well. Significant sustainability issues remain concerning how such buildings are made and where specifically the

housing is located. Sustainability demands that all housing (but especially social housing) should be more eco efficient and should be better located or create locational amenity through service provision in areas currently poorly located.

The rationale for this is for both environmental and social justice reasons: saving energy in the house and transport (in particular) is not just of benefit to the earth but is a necessary reduction in the on-going daily bills of ordinary people. Social housing needs to be ecological for long-term social reasons as well as ecological. A roof overhead can become a noose around the neck if on-going costs are not manageable. Thus the paper looks next at the sustainability issues of eco efficiency and of location.

Task 2: Ensuring housing is more eco-efficient and sustainable in design and construction

There is an intensive review occurring in all Australian States about how housing can become more eco-efficient and sustainable in design and construction. For example the Victorian government has a 5 star energy rating requirement on all new homes, the ACT requires all house sales to demonstrate their star rating and the new Building Code of Australia has been pushed to be more energy efficient with the Australian Building Codes Board suggesting "environmental sustainability as a goal of the BCA in future reviews" (ABCB www.abcb.gov.au). This is part of a global movement to create more sustainable buildings.

The International Council for Research and Innovation in Buildings and Construction (CIB) and the Confederation of International Contractor's Association (CICA) all made detailed submissions to the Johannesburg World Summit suggesting what this new agenda is for building. They go well beyond energy efficiency to include all the factors listed in Table 4.

Table 4. Characteristics of Sustainable building and construction (From CICA, 2002 www.cica.net)

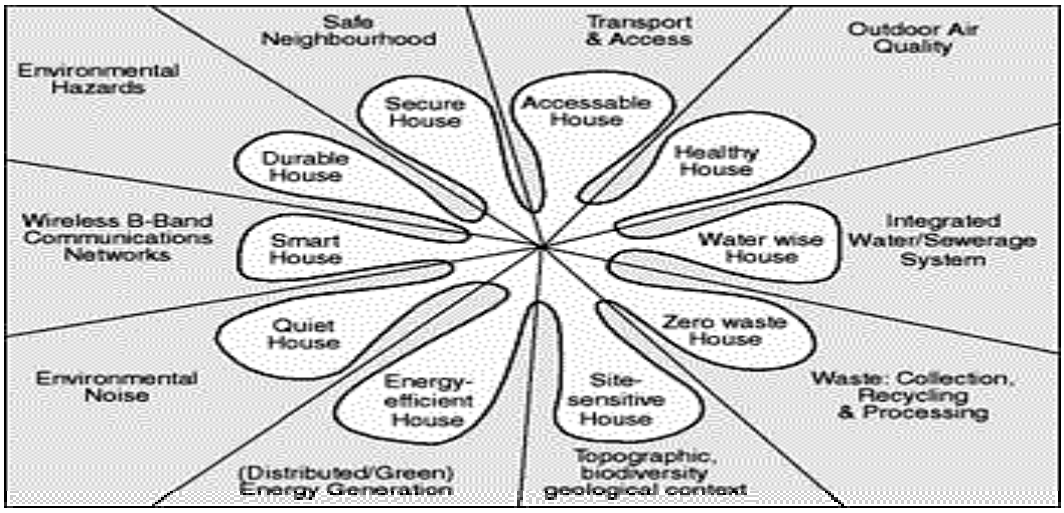
Factor	Goal
1. Environmentally Friendly Construction Materials	To reduce the demand on the earth's crust (50% of all extraction)
2. Energy Efficiency in Buildings	To orient correctly and use insulation so that energy and greenhouse gases are reduced
3. Construction and Demolition Waste Management	To reduce this waste component through recycling
4. Water Conservation	To use water sensitive urban design, water efficient appliances and low water gardens
5. Healthy Buildings	To reduce chemicals, dust and allergens
6. Public Transport Orientation	To reduce car dependence, energy and green house through compact, transit-oriented design
7. Operability	To ensure long term usage and universal access
8. Sustainable Architectural Process	To ensure design is based on dialogue

	and co-operation to ensure quality
9. Social and Community Building	To help build social cohesion and local jobs through mixed use.

All these criteria are accepted practice in any 'green' building design guides that are proliferating throughout developed countries.

Another system for looking at such sustainability innovation was developed for the

Fig 4. SPLASH – Sustainable Planning of Land use Activity, Subdivision and Housing



Australian State of the Environment Report (see Figure 4) by Newton et al (2001).

Some of these characteristics are related to the next section on locational planning though most are directly relevant to the actual design and construction of housing projects.

This global responsibility to respond to more eco efficiency and sustainability in building is a feature of the Australian Greenhouse Office in the Federal Government which provides much advice on what people can do (see National Greenhouse Strategy, 2002, and YourHome.com.au which includes the Yome Home consumer guide and Technical Manual). The AGO and Environment Australia also support industry initiatives such as the Housing Industry Association's GreenSmart programme, which aims to improve both housing design and construction through voluntary training. These programmes are predominantly market driven with a focus on the individual and social benefits of sustainable housing. There is no link to the Commonwealth's very substantial housing program. There is no targeted requirement to use these funds to assist the Government in their goal of meeting greenhouse gas reduction. They are not 'joined up'.

The new eco-efficiency and sustainable design agenda is clearly being adopted by innovative architects and builders. They can see its multiple advantages. The problem is that such building is rapidly being adopted by the wealthy but it is largely by-

passing the housing disadvantaged who can benefit greatly from eco-efficient housing. The reason for this is generally that these innovations are seen to add to the cost of housing and hence must be traded off in the main business of providing cheap housing.

Many of the new sustainability requirements on buildings can be achieved without extra cost and many others are minimal extra cost (Vale and Vale, 2001; SEAVic, 2001; NSW Sustainability Advisory Council, 2002). These would be extremely important to impliment as low-income tenants in particular would be given, through such buildings, the on-going assistance to minimise their payments on electricity, gas, water and transport. There are increasing numbers of tenants being placed on drip systems in Perth due to an inability to pay their water bills, some of which are in the top ten percent of bills due to their poor appliances and inappropriate gardens. Electricity and gas cut-offs have been known for a long time. And the problem of the transport-disadvantaged with their dependence on fuel-inefficient old cars in outer areas is now endemic (Newman and Kenworthy, 1999).

There is much conjecture over the so-called 'additional' requirements of sustainability, i.e. is developing greater efficiency in terms of energy, water and material resources whilst simultaneously improving the comfort and health for the occupants, necessarily going to increase the initial capital outlay of the building project? Many expert studies now suggest that it does not need to (Tendler 1999; Sullivan 2001; SEAV 2001a; Johnston 2002). Sustainability in this area of life can be achieved though it does not happen easily. Many innovations require designers and builders to be more aware of these requirements from the start of the design process rather than trying to bolt it on afterwards. And in nearly every case, by considering all the costs and benefits over the full life of the building, the lifecycle cost assessment of green building will conclusively show net gains in financial, environmental and social terms (Tendler 1999; Heerwagen 2002).

There are also more expensive items in the eco-efficiency agenda that are undergoing trials and research to bring down their costs. Scale of production, influenced by client demand is a critical factor in pricing of eco-efficient products. Government housing projects can assist here too by trialling such projects.

Finally when the question of 'extra costs' is considered there is a real question of what is seen as 'necessary' in the package before these other matters are considered. Analysis of where the costs in housing have been going in recent years reveals that there are many 'so called or perceived essential' items, such as formal lounge/dining, double carports with concrete floors, ducted air-conditioning… that may not in fact be needed, or even used. Perhaps if people were given more of the options that can enable choices to be made in these matters then eco-efficiency options may be much higher in the priority.

House size in Australia also needs to be questioned. Average house area (m^2) has increased 3% per year since 1990, whilst family or average occupancy numbers continue to shrink. There were 3.3 persons per household in 1976, 2.6 in 1999, and this is projected to be at 2.4 persons by 2011(ABS 1999; Newton et al 2001). The average West Australian residential home is ~188-230m^2 (DHW 2002), whilst in the UK the average three bedroom house has a floor area of 80m^2 (Vale et al, 2001).

Even with relatively cheap construction costs of $\$600/m^2$, a $15m^2$ reduction in floor area would provide $9,000 for housing performance improvements. Increases in floor area, whilst adding to the overall cost of housing, also add to daily operating costs, specifically heating and cooling, which currently accounts for ~25% of residential energy use. An extra $9,000 would pay for a huge array of eco-efficiency improvements.

Arguments for and against costs are not always conclusive due to a breadth of parameters that can be considered. But what is conclusive is that high performance green buildings are cheaper to run, and provide a better indoor quality, which has obvious beneficial ramifications for low income families.

Thus it is critical that social housing providers take on the eco-efficiency agenda. Much of the stigma and maintenance problems of public housing estates stem from their over-emphasis on providing quantity of units without regard to on-going maintenance. This should not be any more a recognisable feature of future state housing in an age where the private sector is rapidly adopting this eco-efficiency agenda. We may be left with a social housing legacy distinguished primarily by high resource maintenance costs.

Rental assistance homes can also be part of eco-efficiency. It is possible to regulate for eco-efficiency minimum standards for rental accommodation or else government CRA funds will not be eligible for tenants in these places. Such a regulation is in place in the USA.

The real question is one of will – is the fashion of the day in terms of design style or the necessity of a double garage with concrete slab, more important than eco-efficiency objectives? Housing authorities and private housing builders all need to face this. The role of government, (through the Housing for Sustainability Scheme) would be to develop, promote and educate the principles, practices and benefits of sustainable housing. Information in terms of resource guides, design guidelines and assessment tools is abundant. The real issue is one of commitment, promotion, and education for both the public and professionals. Creating client demand is as necessary as developing a sophisticated professional understanding of sustainable housing. This refers mainly to the integrated components of planning, development, design and construction. The issue of regulation for eco-efficiency will be needed only if this process fails.

The will and commitment is evidenced in Australia and overseas. The NSW Sustainability Advisory Council is currently developing a range of programmes for sustainable building design and construction(SAC 2002), and in the US the California Sustainable Building Taskforce has undertaken a comprehensive whole of government approach to "*to site, design, deconstruct, renovate, operate, and maintain state buildings that are models of energy, water, and materials efficiency; while providing healthy, productive and comfortable indoor environments and long-term benefits to Californians* (CIWMB 2001).

However there is no coherent housing eco-efficiency policy coming from the Federal Government. A comprehensive housing policy would mean that the Housing for Sustainability Scheme contained a set of guidelines to pursue the goals of eco-

efficiency and to demonstrate leadership in sustainability for building and construction.

A number of State Government based projects are showing this kind of leadership. The Victorian Urban and Regional Land Council's Aurora project is showing sustainability leadership in water sensitive design, energy efficiency, waste management, site design and urban design especially walkability and transit-orientation (including an extended rail spur).

The WA LandCorp project at Atwell South has similar design innovation. It is also building a demonstration eco-friendly school, has an aboriginal component in its community development and 'sense of place' goals.

Those projects are designed to break the mould of new suburbs based on project homes that are extremely conservative with regard to sustainability. They are not receiving any Federal funding or direction and will be attempting to create affordable housing outcomes as well as eco efficiency and sustainable design. A Federal Housing for Sustainability Program should be assisting such projects. Funding could at least be provided to help with the conceptual development of these innovative projects. The experience gained should then be transferred directly into the government housing projects that are being conducted in all the other areas of housing disadvantage.

Task 3: Ensuring housing is well located or contributes to locational equity improvements.

Location has already been discussed in the new Housing for Sustainability Scheme where it is suggested that one of the keys to linking housing to sustainability is the need to target its location and its function in creating new employment for sustainability. Thus locations are suggested in:

(1) Remote areas for Aboriginal enterprises where new natural resource management projects involving indigenous people can be linked to the Program.
(2) Rural areas for community housing with new sustainability objectives for country areas.
(3) Urban areas requiring revitalisation using 'urban villages' that can help generate employment in the new economy.

The first two areas need little expansion but the third needs some explanation and analysis.

The only problem with the Aurora and Atwell South projects mentioned above, in sustainability terms, is that they are a long way out from the city. Both are on good train connections for the future but they are still fringe developments. Berry et al (2002) have shown that the housing disadvantaged are moving further and further out of Australian cities, away from access to service and employment. This is primarily a structural issue as the new knowledge and services economy has turned Australian cities inside out. Newton (et al 2002) have analysed the economic forces that are behind this process. It is also partly the policy of housing agencies as they sell better located properties in order to keep up their funding of public housing.

My sense is that we are breaking into two cities: a 'global city' and a 'parochial city'. One has links to the world economy and is the source of all the new wealth and services that the young are wanting. The other one mostly feeds on its own suburb's building and consumption and is in immediate trouble as soon as it stops growing. This is a dangerous trend as it can lead to a city divided socially and politically as well as economically.

Housing policy has exacerbated this growing division due to the pressure to only consider numbers of units built, i.e. a 'roof overhead', and be less concerned about location. The constant policy conclusion of the past 30 years was that the benefits and attractions of fringe suburbs together with the cheapness of housing made up for any lack of access. The Australian contribution to social justice was seen to be the provision of a house where a family could create their own domestic economy and amenity from the backyard, the shed and the garden (Stretton, 1975). As long as several cars were assumed and other social and economic drivers stayed the same then this dream served us well. But they did not.

These suburbs are now the ones where serious decline is threatening and the importance of location for housing, particularly social housing, must now be considered much more seriously. The full sustainability issues need to be part of this consideration as the extra driving required by those who live in outer areas is now well documented (Newman and Kenworthy, 1999, Laird et al, 2001).

Two new studies in which I have been involved help to provide some perspective.

1. Urban design and greenhouse

A study on 'Urban Design and Greenhouse' for the Australian Greenhouse Office "Promoting Best Practice in Transport and Land Use Planning (National Greenhouse Strategy, 2002) has collected travel data by suburb in Sydney, Melbourne and Perth and related it to a range of urban design parameters: centrality, density, mixed use, access to quality public transport, and permeability of the road system. In all three cases over 80% of the variance in transport fuel (and greenhouse gases) could be explained by centrality (the distance to the CBD). The other factors were all significant but none were as powerful as centrality and could only add another few percent to explaining the variance. Income and other social factors were not relevant. In other words just by showing where someone lives will explain on average their travel behaviour.

As the wealthy are increasingly living close to the city they are the ones who are doing all the energy conserving, walking, using public transport or short driving commutes. Distant public housing and other affordable housing that adds to the burden of costs for travel is a real problem. This is particularly when it is seen that the future is likely to be oil-constrained and more expensive for car travel.

It is hard to put all social housing in central and inner areas though it is important to keep what is there and build on this whenever possible. However, the policy emphasis needs to shift from a focus on the fringe to a focus on redevelopment. The focus can and should be on revitalisation in existing middle and outer suburbs.

As in most broad studies there is some important detail that can help us from the 'Urban Design and Greenhouse' study. There is hope for sub centres in middle and outer areas where the data on travel showed some reduction in transport energy in those suburbs around such places. Hence the focus of social housing on some sub centres that need revitalising would make a lot of sense. This is the approach being taken by the Victorian Government's Transit City project where a dense, mixed use urban village including social housing will be built on the Dandenong stockyards site. This area has been in decline for some time but is next to a major urban facility and a train link. In Perth, the City of Gosnells has recognised the need to revitalise several of its suburbs that are in negative equity, have shopping centres that have been abandoned and are in social and economic malaise (Armstrong, 2002). Other parts of Perth are similar and in the State Sustainability Strategy a new program has been suggested called 'Reviving the Suburbs'.

Such projects need a national priority and funding. They need to be flagships in a Housing for Sustainability Scheme.

2. Locational amenity project

An AHURI project ISTP has been doing is looking at the three kinds of social housing in Perth in terms of their locational amenity. Figure 4 shows the distribution of housing assisted households against distance from the Perth GPO in a direct line to the centre of each suburb. Housing assistance programme recipients by suburb were collected for Public Housing and Rent Assistance households in 2000 and Key Start households in 2001.

Figure 5 shows how scattered across the whole city are the various kinds of social housing with very few suburbs having no such housing. This is an admirable result of generations of social housing provision. Public Housing is generally located in Perth's inner and middle suburbs with a gradual decline in presence as you go further out. Commonwealth Rent Assistance is more evenly distributed although a slight decrease with distance from the Perth CBD can be seen. As suggested by Berry et al (2002) these have been moving out progressively in recent years and the New Living redevelopment program has assisted with this process. Key Start First Home Owners Scheme is low in inner areas and increases in outer and fringe suburbs as would be expected.

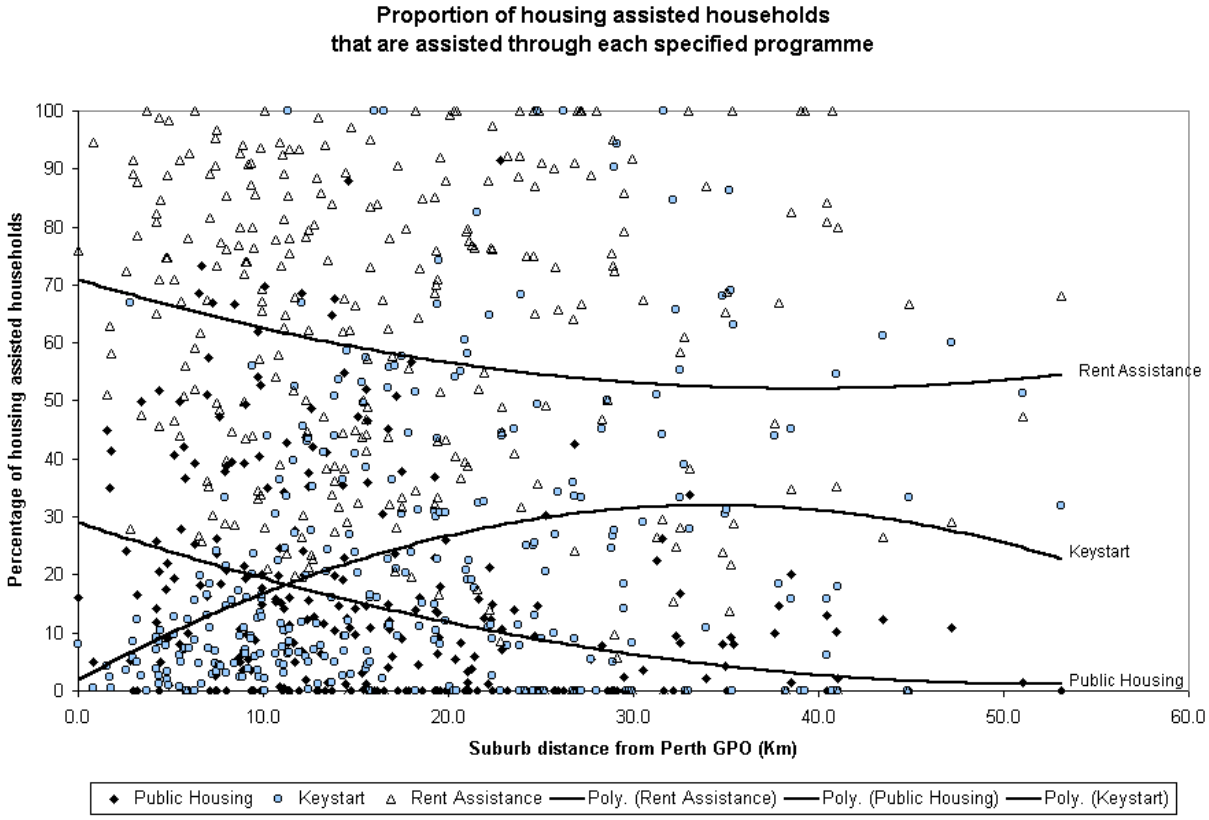


Fig 5 Proportion of social housing in various suburbs

The question of whether this is a problem was analysed by seeing how good was the access to schools, tertiary education, shops, health facilities, entertainment/cultural facilities, community facilities, employment and public transport in 2001. These were weighted according to their importance to the people in each housing type eg young families need employment and schools and people over 65 need neither. Despite this weighting the combined access to amenities was found to vary only slightly between different demographic groups. Most people need access to major urban services and the idea that some suburbs may not need these services should not be acceptable. Such an idea is the basis of car dependence and the inadequate provision of local services.

As shown in figure 6 there is a significant relationship between distance and amenity, with a general trend of decreased amenity the further the distance from the Perth GPO. The overall relationship between distance and amenity is strong and confirms the Urban Design and Greenhouse study (above) where centrality could explain most travel. This relationship should not be brushed aside and a policy emphasis on the location of social housing within these areas of high amenity should be pursued.

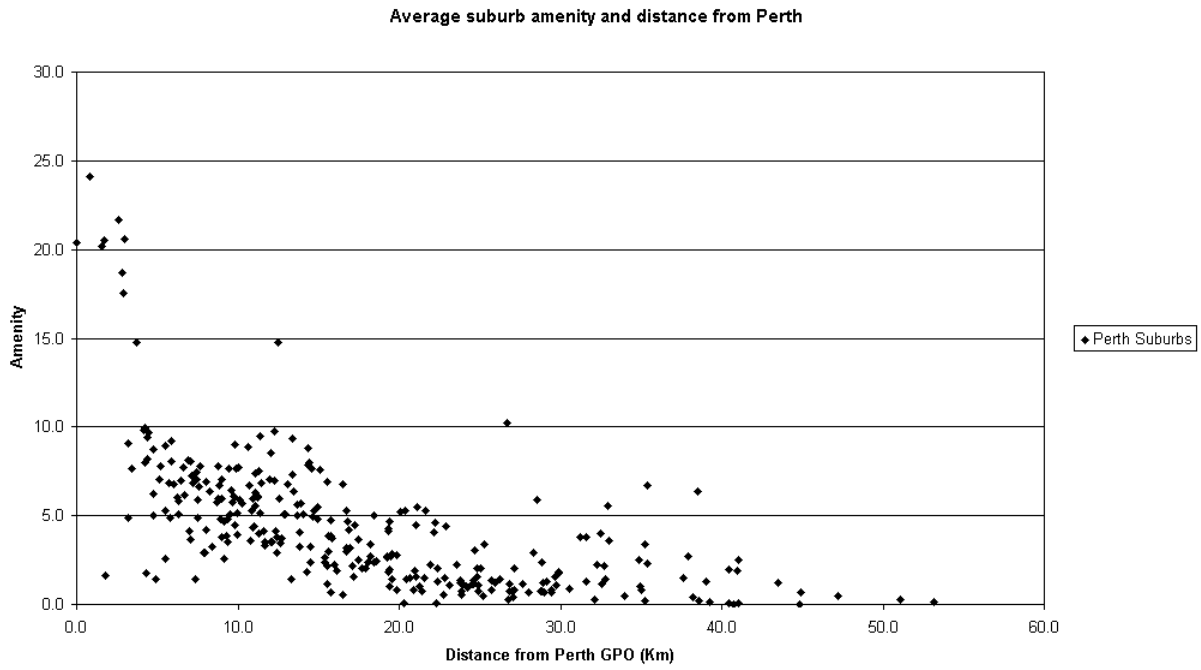


Fig 6. Amenity by distance from the CBD for housing assisted people (averaged) by suburb in Perth.
(Suburb amenity scores were derived from the average of suburb amenity scores for the following groups : single parent families with children under 13, more than one parent families with children under 13, single parent families with children over 13 and under 17, more than one parent families with children over 13 and under 17, disabled persons, aged persons and KeyStart recipients.)

However, some amenity scores in middle and outer areas are quite high, showing that distance alone does not necessarily determine amenity. These high amenity suburbs are all associated with viable sub-centres of urban activity that have a range of services and employment, not just shopping. Thus the value of sub-centre development to the creation of locational amenity should also be a part of the housing agenda. This can only happen if housing is part of a bigger urban revitalisation project.

The question remains as to where such sub-centre development should occur. There are two important aspects of detail that can be seen in figure 6 when the amenity data are provided by corridors against distance from the Perth GPO as shown in figure 7:

a) The inland suburbs (the eastern belt) are universally lower in amenity than the coastal suburbs; and
b) There are three strong sub centres where amenity is clearly of value to their suburbs around them but none of these are in the low amenity corridors.

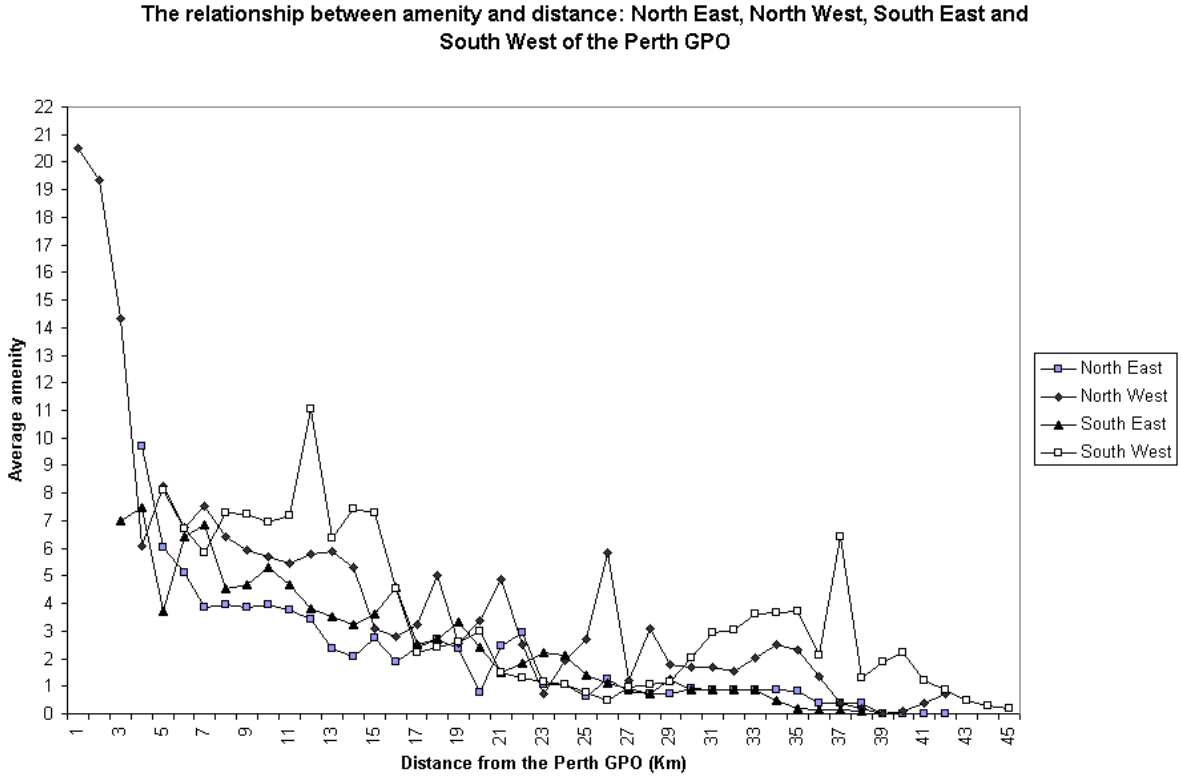


Fig 7. Amenity by corridor in Perth suburbs.

This helps define the locational aspects of Housing for Sustainability in terms of the urban revitalisation agenda: concentrate housing in sub-centres in low amenity corridors as a part of revitalising areas. In Perth the real need for revitalisation is in the low amenity eastern suburbs where there are virtually no sub-centres of any substance. It would appear that there is a clear policy conclusion in relation to the need to create strong, mixed use sub centres as a way of tackling the problem of access to services, to create employment opportunities in the new economy, and to reduce the overall travel needs to people in that area. Housing needs to be a driving force in this process and such sub centre projects could be a core part of the Housing for Sustainability Scheme.

It is not a new idea to cluster development and connect it to good public transport (Conservation of Urban Energy, 1974). Transit oriented urban villages are needed. The evidence is growing that for social justice reasons, environmental/ energy reasons and economic development reasons, this policy needs to be given substance. The role of housing in driving this is crucial.

Those examples of urban villages created in Australia recently have been remarkably successful, especially the very dense, walkable areas created in such Better Cities areas as East Perth, Subiaco and Fortitude Valley. The importance of finding a mechanism to enable ordinary Australians to be part of these developments cannot be overstated. The past 15 years has seen the development of dense urban villages in Australia become almost totally dominated by the wealthy.

I believe there may be an important role for local government and community housing associations here. Many areas suitable for revitalisation are being earmarked for

wealthy urban villages. Local residents (especially older people wanting to stay in their area but in a small place) and who are wanting to be part of such an environment could be brought together into an association as part of the Housing for Sustainability Scheme. Local government can play an important part in forming such associations. Community housing associations and co-operatives need to be better accredited and regulated so they can have more access to finance and form the partnerships needed to create such projects. Government assistance will be critical in establishing such groups and in part-funding. The link to a targeted revitalisation project is also a critical way to give such housing credibility.

It is possible to include in such projects demonstrations of community-based, 'car-free' eco-housing as has been developed in Europe in recent years (see Scheurer, 2001). Such places indicate how all three housing policy goals can be brought together.

The Urban Revitalisation sub-program of Housing for Sustainability, should have a range of goals that coalesce in the need for viable and active sub-centres or 'urban villages', particularly if they are located in the middle and outer areas in corridors lacking amenity and jobs for the new economy. The need for a Federal Program that can give assistance to this would create the opportunity for substantial partnership funding with state government, local government, and the private sector as well as with community housing associations. Sustainability goals provide the glue that brings these partners together and housing provides the driving force for demonstrating a range of sustainability outcomes.

CONCLUSION

The importance of the sustainability discourse is that:

- It enables hopeful solutions to be governed based on communities and their aspirations.
- It displaces the greed and fear-based discourse of competition with a greater emphasis on collaboration.
- It enables social justice to be seen as having a necessary integral role rather than being an ideological, 'bolted on' addition if you are lucky.
- It touches the deeper levels of belonging ('deep sociology' and 'deep ecology') that drive everyone.
- It makes governments re-examine how to be more integrated in their approaches to policy.

There are many ways that sustainability can be applied to housing. This paper has suggested three primary tasks:

1) There are real social justice aspects of sustainability that require much greater housing provision for aboriginal people in remote areas, regional community housing projects and revitalisation in declining middle/outer suburbs of Australian cities.
2) There is a broad and growing need for eco efficient and sustainability designed building and construction. This should not be an exclusive haven for the wealthy but needs to be applied to all housing, especially the housing disadvantaged as their on-going maintenance needs are significantly reduced.

3) There needs to be greater consideration of location both in terms of energy/environmental factors and the access to amenity and employment. In cities, the process of building dense sub-centres or urban villages is happening but invariably they are for the wealthy when such centres provide ideal opportunities for revitalising the declining middle/outer suburbs. Housing, especially community based housing in partnership with employment based around innovative urban design for the new economy, could drive this process.

These areas of sustainability need to be funded and targeted and it is proposed that a single mechanism can do this. A Housing for Sustainability Scheme is suggested to replace the First Home Owners Grant through making those with greater than $75,000 household incomes ineligible and also current homes ineligible unless they are part of a targeted, designated area for revitalisation. This $0.8b per year could be multiplied through partnerships into at least $5b for a major commitment to building sustainability into Australian settlements.

Together with the CSHA and CRA the $3.5b of present Commonwealth housing funding would be directed to achieving real sustainability goals through the housing driver. Thus housing can be 'joined up' to broader government goals and to broader partnerships with the community and private sector.

It is therefore possible to see how housing can be given a boost through the sustainability agenda and sustainability can be given a boost through the housing agenda. Such are the partnerships we should be seeking.

This partnership will only occur if housing is seen as much more than just a roof overhead but a core component of creating a sustainable future.

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