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EXECUTIVE SUMMARY

The nation’s investment in public rental housing in the post-war period has created major social and economic benefits however much of the stock is now at the end of its economic life and/or it does not meet current needs. Concentrations of entrenched social disadvantage have developed in some public housing estates.

The aim of this study is to gain an understanding of the problems being faced in public housing estate renewal projects and to develop a framework for project evaluation, particularly with respect to social and economic impacts.

The policy context for estate renewal projects is that housing assistance has increasingly been delivered via rent assistance payments with CSHA funding being progressively cut back over the past decade. Some States are contracting their public rental stock, particularly in broad- hectare estates.

A review of overseas experience highlights the different circumstances that prevail and throws little light on the Australian situation. In Australia the need for estate renewal is driven largely by stock obsolescence and social problems are not as acute. The Australian literature does draw a link between concentrations of social disadvantage and public housing estates though. The need for a holistic approach to community renewal is advocated.

In undertaking the study all States and Territories were consulted and nineteen case studies were documented. It is observed that obsolescence and unsuitability of the housing for current needs is more often the trigger for renewal. But closely related to this is the perception of social dysfunction.

Most of the cases examined concentrate on asset renewal, but there are examples of combined community renewal approaches. In many instances there is a desire to reduce the presence of public rental in the area in question, although this does not apply in all cases.

There is no common approach to evaluation, although most projects are subjected to financial assessments. The format of these varies to suit the nature of the project and the issues at hand.

Reports from practitioners in the field suggest that most projects are highly successful where significant improvements in housing standards and neighbourhood amenity occur and where the public rental presence is considered to be at an appropriate level. Potential adverse social impacts associated with tenant dislocation are reported to be adequately managed.
Nevertheless, there is a questioning as to whether tenant dislocation is creating some hidden problems and there is a concern that in regions where supply is contracting there will be a drying up of relocation opportunities.

Based on the case studies, the costs and benefits that are generally associated with public housing renewal projects are identified as being:

**COSTS**

- Opportunity Cost on Land and Improvements
- Capital Costs – Housing and Infrastructure
- Recurrent Costs – Housing and Infrastructure
- Tenant Compensation
- Tenant Relocation Costs (Benefits)
- Reduced Housing Opportunities

**BENEFITS**

- Sale of Surplus Assets Up-front
- Sale of Residual Assets on Wind-up
- Better Living Environment for Public Rental Dwellings – (Higher standard dwellings - Better neighbourhood amenity - Reduced stigma)
- Better Living Environment for Other Dwellings in the Neighbourhood. – (Higher standard dwellings - Better neighbourhood amenity - Reduced stigma)
- Reduced Social Dysfunction Generally – (Possible society-wide benefits as reflected in social indicators).

These costs and benefits are examined in the report in terms of their incidence and the basis upon which they might be valued in dollar terms to enable them to be incorporated into a cost benefit analysis. A project typology and a stepwise approach to project evaluation are developed based on a modified form of cost benefit analysis.

The mechanics of discounted cash flow analysis are explored and the application of discount rates is discussed. Some methodological questions are dealt with including the need for further work to enable dollar values to be assigned to indirect social costs. A manual for application of the recommended evaluation framework has been prepared as a companion to this document.
The recommendations are:

1. It is recommended that this report and the draft manual prepared in conjunction with the report be applied to selected case studies to test its usefulness as an evaluation methodology.

2. It is recommended that research be undertaken at the national level into developing regionally specific shadow prices for the following:
   - Tenant dislocation costs such as loss of social networks upon relocation or by changing the tenure mix of an area;
   - Costs to people affected by reduced housing opportunities in a region resulting from estate renewal; and
   - Benefits from reduced social dysfunction generally from estate renewal.
1. INTRODUCTION

1.1 Background

The role of public housing has evolved in the post-war period when it was conceived as an alternative tenure to ownership and private rental. It was to be a self-perpetuating tenure with rentals providing the economic base. Estates were planned and developed to achieve multifarious objectives, such as to:
- create an economic stimulus in the building industry and hence regional economies and the economy generally; and
- provide worker housing for strategic resource and/or manufacturing industries.

In most instances the estates achieved their original intent and have generated significant economic and social benefits now enjoyed by the product of the baby boom era. Australia is arguably a more economically vibrant and politically stable democracy as a direct result of these major interventions by post-war governments.

Other objectives pursued by public housing programs have been to:
- clear and redevelop so-called slum areas;
- test and apply new building materials and methods of housing production; and
- test and apply new house design and neighbourhood planning approaches.

It is generally held that performance in relation to these objectives has been uneven, although it is quite clear that many thousands of households have been assisted. But many areas previously thought to be slums have experienced natural renewal while the public rental estates now exhibit various degrees of physical and/or social decay. A considerable amount of investment in public housing estates is now directed to reversing or removing some of the design and planning experiments of the past.

Whatever the original motivation for developing public rental estates, much of the stock is now at the end of its economic life or it does not meet current needs. Some of the land assets have little or no economic value in today’s market (eg. in remote towns where resource industries have closed) but in other instances the land assets have appreciated considerably (eg. in the central areas and middle ring suburbs of the larger cities). Taken together, the asset base is a valuable legacy of the program and it provides a significant resource for the delivery of housing assistance, albeit of a different kind, into the future.
There has been a growing awareness in the past decade of the physical and social problems associated with concentrated ageing public housing. The public housing estates in question vary from broad hectare low-density housing to high-density high rise in the major cities. The term estate renewal is commonly used to describe projects that aim to tackle the problems of physical decay and/or social dysfunction in these areas.

The characteristics of estates that cause concern include:
- high concentration of public housing;
- stigma and poor image for residents;
- low client satisfaction levels and high vacancy rates;
- high concentrations of the socially disadvantaged with high levels of unemployment, crime and other indicators of social dysfunction; and
- tenancy management problems such as high arrears and neighbourhood disputes.

The estates often exhibit:
- design problems, often relating to common areas and open space;
- poor building condition relating to age, backlogs in maintenance and poor design or construction; and
- in some instances, poor location with respect to jobs and urban services.

Commonwealth and State/Territory housing authorities are engaged in various strategies to address the problems in these estates. Activities have included:
- external and internal dwelling upgrades;
- redevelopment involving demolition and replacement;
- sale of dwellings; and
- neighbourhood amenity improvements.

Often these strategies are accompanied by initiatives in the areas of:
- community consultation and involvement;
- integrated human services planning and provision; and
- employment and training.

### 1.2 The Brief

The aim of the study is to better understand:
- the linkages, if any, between the estates and broader social problems such as unemployment and crime;
- the nature of problems being identified on these estates;
- the stated objectives of the estate renewal project;
- the range of activities being undertaken as part of estate renewal (not limited to activities involving capital expenditure);
lessons from experience to date and the identification of best practice approaches from overseas;
- findings from overseas research which may be applicable to the Australian experience; and
- indicators and measures for assessing the success of estate renewal projects.

The study also aims to develop a framework and methodology for evaluating estate renewal projects, particularly in terms of their social and economic impact.

In particular, the study is required to review experience nationally and to document:
- the rationale and triggers for estate renewal projects; and
- the various types of projects, problems being tackled and approaches being taken.

The purpose of the research is to improve the collective knowledge of the Australian experience of public housing estate renewal and to develop a cost-benefit evaluation methodology for assessing the social and economic impact of projects and to identify other areas of useful further research.

1.3 **Approach and Method**

The primary research carried out for this study was a review of current practice in Australia. All State and Territory housing authorities were circulated with an outline of the study and were furnished with the brief. Contacts nominated by the authorities were then followed up with a questionnaire (Appendix 1) and were visited by the consultant.

Case studies were nominated on the basis of whether they provided good examples of current approaches. All case study estates were physically inspected and the documentation supplied was analysed with an emphasis on evaluations undertaken and cost benefit analysis where carried out.

This research was supplemented by an Australian and overseas literature review.

The consultants were directed to focus on cost-benefit analysis and its applicability to evaluating public housing estate renewal projects.
2. POLICY DIRECTION AT THE NATIONAL LEVEL

2.1 The 1999 Commonwealth State Housing Agreement (CSHA)

The current CSHA incorporates guiding principles reflecting negotiations that have taken place over an extended period of time. The principles emphasise that the purpose of funding is to assist those whose needs for appropriate housing cannot be met by the private market. The duration of assistance should be based on those needs. It is intended that assistance will be provided to those with the highest needs.

The CSHA also contains guiding principles on flexibility of arrangements with the States, efficiency, cost-effectiveness, accountability, transparency and equity in service delivery.

The Commonwealth and the individual States/Territories have entered into bilateral agreements to identify outcomes to be achieved. A core set of nationally consistent indicators and data has been developed for benchmarking purposes.

Funding under the new CSHA will generally be distributed on a per capita basis to the States with specified matching grants required. The level of funding continues the trend towards housing assistance delivery via rent assistance in lieu of public housing as illustrated in the diagram below.
Comparison of CSHA Funding to Rental Assistance Funding


2.2 Implications for Public Housing Portfolio Management

At this phase in the evolution of the public housing sector the overall policy settings are of critical importance. The States in developing their various approaches to be incorporated into bilateral agreements necessarily take into account the emphasis on rent assistance at the national level. Consequently, significant additions to public rental portfolios are unlikely to occur.

This is already evident in some estate renewal projects around the nation where the approach generally is to realise land value, and any residual building asset value, to provide a lesser number of high quality dwellings with low maintenance costs. Most jurisdictions acknowledge that this approach, combined with sales programs, will result in a substantial contraction in overall public rental dwelling numbers in some areas. The exception is the inner areas of the larger cities where it is recognised that private rental is not a viable option.

It is clear that an unprecedented redistribution of the costs and benefits associated with housing assistance delivery is taking place at the macro level and that these have a potential to swamp the effects of costs and benefits generated by any individual estate renewal project.
3. THE LITERATURE

The following review considers the past and present policies of places that have a history of public housing estate development and management similar to Australia. These are North America, Britain and Europe (The Netherlands and Sweden).

3.1 North America

In parallel with the Australian experience, the provision of public housing in the U.S. was initially aimed at ensuring that working class families were adequately housed. The premise was if the government could provide security of tenure, working class families would be able to save surplus income, enabling them to move to other accommodation in the short to medium term. Thus, public housing was initially intended as a temporary situation.

More recently, the provision of public housing has been directed towards those most in need. In 1996, about 45% of public rental households were occupied by elderly or disabled persons and the remainder were occupied by very the poor (i.e. those with a median income of less than $US6,000) (Stegman, 1997). Thus the provision of social housing in America now incorporates a prominent welfare role and is accepted as a permanent measure for many.

A very small percentage of households in America are classified as public renters (2%), and this constitutes approximately one third of all subsidised housing (Stegman, 1997). Stegman notes that the majority of buildings are safe, clean and comfortable, but in some areas where there are large concentrations of public housing there are also high levels of crime, drugs use and dependency and urban poverty.

Federal ownership and management processes were the main themes of the early approaches to the development of low-income housing. In the 1930s, federal budgets provided for the full capital cost for construction, but no provision was made for capital replenishment. As a consequence, much of this housing has deteriorated, and much of it has outlived its economic life (Stegman, 1997).

The 1960s, 1970s, and early 1980s saw a marked contrast to the approach of the 1930s. Although there was still some direct involvement from the Federal government (i.e. in acting as developer and landlord), this period saw the focus of housing provision change to one that established incentives directed towards the private sector assisting in the delivery of public housing.
acted upon, the private sector usually took up 20 to 30 year contracts (Stegman, 1997).

Between 1965 and 1983, the Federal government subsidised the development of nearly 1.5 million units of privately owned multi-family apartments (Stegman, 1997). Some specific initiatives enabling this to occur included low interest loans, insuring private mortgages, furnishing project-based subsidies to pay rents, and providing tax incentives by allowing rapid depreciation of properties financed with non recourse debt.

The other major change in this period was the passing of legislation that restricted the amount public authorities could collect to a fixed percentage of the households' income.

While the above initiatives enabled the production of many units, there were significant shortcomings. The private sector initiatives left the government with a heavy burden caused by households defaulting on their mortgages. In addition, the government found that increasing subsidies were required to keep rents up to investor requirements. State-run housing costs began to exceed rental income (rent collection accounted for approximately 40% of costs) and a federal operating subsidy was established. In the climate of decreasing budgets for housing provision, and with no other means to obtain income many dwellings physically deteriorated.

In 1979, the Public Housing Modernisation Program was established to target neglected dwellings. It was acknowledged that this type of program was long overdue, but previous budgets in the housing portfolio prevented such an initiative. It was estimated that, to be effective for the dwellings constructed in the decade to 1979 alone, the program would require approximately $2 billion per year (Stegman, 1997). Furthermore, to make amends for the past neglect, about $5 billion annually would be required. Since the program has been initiated, it has been averaging about $2.5 billion per annum (Stegman, 1997).

**Current Directions**

In 1993, the Clinton administration established ‘Hope VI’, representing a dramatic change in public housing renewal policy. This program has been implemented by the Federal Department for Housing and Urban Development (HUD). The program aims to demolish and replace 100,000 units of the worst public housing. It also recognises the need to address external social and economic links in the following ways:

- Provide for a mix of incomes and family types;
- Foster a self-help and community participation ethic in the process of renewal;
Enable partnerships to be forged with profit and not-for-profit developers; and

Ensure that communities are well located with regards to jobs, education and training, public transport and recreational opportunities.

The approach comprises four components. First, to continue to replace the worst of public housing estates, and to economically integrate developments to reduce the concentration of the disadvantaged. Secondly, to improve public housing authority management and operational practices. Thirdly, to encourage public housing tenants to achieve greater self-sufficiency. This includes setting rent ceilings to market levels. The final component aims to ensure there is a higher level of expectation that public housing residents are accountable for their actions.

In February 2000, HUD produced an extensive report on the success so far of the ‘Hope VI’ program. The ‘Hope VI: Community Building Makes a Difference’ lists 6 key findings, based primarily on a practical assessment of outcomes by looking at specific cases:

- The program is achieving its goals of community building not just through asset replacement but also by nurturing community values and focal points;
- It has been successful at shifting residents from welfare dependency to employment;
- It has assisted residents to move into the economic mainstream by providing education, job training and computer literacy;
- It has reduced incidents of crime and violence on public estates;
- It has reduced the isolation and stigmatisation of residents; and
- The program has leveraged significant investment in community-wide capital improvement.

HUD has also closely examined an asset management approach to public housing finance. In April 1996, it produced a report titled ‘Public Housing in a Competitive Market: An Example of How it Would Fare’.

The report assesses asset management at the housing agency (HA) level. The assessment is made in the context of deregulation and lower operating subsidies. The main premise of the policy is that reduced operating subsidies will force HAs to become more responsive, to analyse housing stock, organisational practices and private markets, in order to improve their viability. Faced with the difficulty that housing estates have rarely been developed with the standards of the private market in mind, the report applies a test case to identify how HAs might proceed in the private market.

The test case assumes that Federal regulation of public housing is significantly reduced. The public housing subsidy structure is changed to a tenant-assisted,
market-based program. HA operating subsidies are eliminated, forcing them to compete in the market place for tenants. Existing public housing tenants are rent-assisted with a portable subsidy that would ‘go with them’ should they leave public housing for the private rental market.

The assessment produced the following results:

- Public housing would generally rent below the private market average;
- There would not be an immediate outward flow of existing public housing tenants to the private market;
- HAs would not achieve enough rental revenue to cover operating costs, if the properties were rented out in ‘as-is’ condition; and
- Modernisation of existing stock would not necessarily increase rent revenue to a surplus over operating costs.

The HAs would be forced to contemplate organisational and operational changes, and changes to housing stock, if they were to survive without Federal operating subsidies. It was found that moving the HAs to a break-even or profit bottom line would require:

- Substantial finance for capital improvement from sources outside the HA;
- Modernisation decisions dependent on the potential for ‘pay-back’ eg reduced costs and/ or increased revenue;
- Reduction of stock by about 10%;
- Smaller, decentralised management; and
- Increasing the income mix of clients.

The conclusion recognises the cost-effective benefits for Federal funding. However, the investigation acknowledges its limitations. It does not consider a number of costs relating to the processes of implementation such as tenant counselling and administration costs.

### 3.2 The United Kingdom

Along with domestic innovations, many aspects of the United Kingdom’s various approaches to social housing provision have been adopted from other European countries, America and in some instances, from Australian policy (eg. Workfare programs) (Maclennan, 1998).

With approximately 22% of the housing stock dedicated to public housing (Berry, 1998), housing policies within the UK have implications for urban and social support policies generally.
Public housing policies have switched from the provision of working class housing to ‘welfare’ housing. The UK’s housing provision policies can be broadly described in three phases – between 1950 and 1975, 1975 and 1990 and post 1990.

Maclennan (1998) has classified the 1950s to the late 1970s period as one directed towards ‘welfare state expansion and Keynesian demand management policies to maintain full employment’. This period can be classified as one in which:

- A large amount of money was directed to public expenditure;
- Policies were vigorously pursued but were controlled centrally and sectorally (i.e. no coordination between sectors or program expenditures);
- Most programs that were implemented were State or city wide policies (i.e. few small area programs were developed);
- Results were reported in simple terms – for example, the number of houses built – but were independent of wider social and economic consequences; and
- The key aim was directed towards slum clearance and redevelopment.

This period produced many houses, but few cohesive neighbourhoods, as there was no consideration of employment location and labour market effects. In addition, policies were not directed towards regeneration of run down areas or empowerment through involvement in the planning process.

Towards the middle of the 1970s small area policies started to emerge. However, like the previous policies, they suffered from inadequate coordination across sectoral responsibilities (Maclennan, 1998).

Around 1974, the labour government introduced the General Improvement Areas program, the Housing Action Areas program and a limited number of pilot community development projects. These were aimed at encouraging more economically focused outcomes, as the combined effect of suburbanisation, the decline of the manufacturing industry, and some cancelled motorway programs made the prospects for employment more difficult. Residents were asked to participate in the programs for the first time.

Although some regeneration had begun to be recognised by the mid 1970s, the outcomes of the programs outlined above were limited. They were seen to be fragmented, on too small a scale, and non-strategic (Maclennan, 1997). One of the main weaknesses of the program was their focus on addressing problems in the inner cities. While many inner cities were in need of rejuvenation, this labelling effectively stigmatised other, better functioning inner areas. In
addition, key outer areas missed out completely on important sources of funding (Maclennan, 1998).

In 1978 the Labour Government passed legislation entitled the Inner Areas Act. Its main measure was to introduce the Urban Development Corporations, which aimed to restore economic viability.

During the Thatcher era (1979-91) the approaches taken to social housing provision radically changed. Direct government intervention made way for a more commercially orientated, business partnership and performance based approach. This produced some positive effects, but there were also many negative consequences. For example, by 1990, social housing investment by Councils was at an all time low, with expenditure at approximately a quarter of the 1980 levels (Maclennan, 1998).

Because of the low budgets, expenditure was aimed at critical repairs and upgrades, with construction being passed to housing associations. The bricks and mortar subsidies diminished and housing benefits became the main form of relief. Inadequate maintenance, economic restructuring, and isolation from other communities all contributed to increasing welfare dependency to a level not previously experienced. Although unintentional, these policies encouraged the emergence of concentrations of the unemployed and the otherwise socially disadvantaged (Maclennan, 1998).

In 1991, the emphasis changed spatially and structurally. The focus on the inner city widened to include ‘brownfield’ sites. In addition, these policies attempted to focus on how regeneration effects could become more directed, more strategic, integrated and community partnership-orientated. The policies had small beginnings with programs such as the Estate Action, which co-ordinated the provision of public housing with environmental, crime prevention and service management issues.

In Scotland these directions were emphasised in the Partnership Areas program which focussed on run-down social housing areas. The programs were chaired by central government, but had representatives from multiple government agencies, the community and business. They are held to have been largely successful.

England’s approach was slightly different. Naming the program City Challenge, a fund was set up from which bidders could compete for funds. To be successful, bidders had to display the characteristics of integrated action. This was criticised as some thought it reduced the local government influence and allowed, in some cases, minority interest groups to dominate the process (Maclennan, 1997).
The above approach was strengthened in 1994 with the introduction of the Single Regeneration Budget. This consolidated the budgets of 14 small-area regeneration studies in a bid to improve the strategic nature of the programs. Local governments led just over half the successful bids. This again raised criticism regarding the influence of local government with the 'partnership' components being questioned in relation to those bids being led by organisations other than the municipal authority.

**Current Directions**

In 1997, another Labour government came into power. Its aim was to enhance competitiveness, and at the same time to reduce social exclusion. (Maclennan, 1997). Under this aim, the importance of area regeneration was promoted significantly.

The government established a social exclusion unit to promote strategies directed towards those locked into long term poverty. This was particularly relevant to large-scale public housing estates, as these areas have large concentrations of severely disadvantaged families.

The concept of social exclusion accepts that location is important, but suggests that “relational rather than distributional issues (need to be addressed, and in so doing) places emphasis on inadequate social participation, lack of social integration and lack of power” (Taylor, 1998). This changes the emphasis somewhat from urban poverty being at the root of all problems to that which acknowledges the importance of the relationships between those individuals and society at large (Room, 1995; Murie, 1996).

The cycle of exclusion is illustrated in the diagram below:

![Diagram](attachment:image.png)

**The Cycle of Labelling and Exclusion (Taylor, 1998)**
The current government notes that improving partnerships and community involvement in programs are important, but also required are fundamental changes in the culture of public housing organisations and economic development strategies.

The policy responses to reverse the social exclusion problem in public housing estates focus on community renewal, changing the landlord, jobs and partnership. This much is attempted through ‘Bringing Britain Together: A National Strategy for Neighbourhood Renewal’, produced by the SEU in 1998.

The report defines ‘poor’ neighbourhoods through a broad range of social and physical criteria. There is a strong correlation between the location of disadvantage and ageing public housing estates, but the relationship is not exclusive. The policy aims to not only address the physical quality of poor neighbourhoods but to establish a cross-sectoral platform for change.

The report considers a range of existing area-specific programs where there have been signs of success. These successful approaches have become the ‘best practice’ framework for the new policy direction. It is reported that in some UK programs, holistic approaches using social strategies have produced quantifiable savings. For example, reduced repair and maintenance costs have been achieved on estates by employing ‘estate wardens’ (Youth Works, East Lanes and the Dundee Family Project).

Future policy, it is intended, will have a strong focus on community-generated renewal. It offers four new programs, integrated to complement each other. These are:

- New Deal - £800 million to bring together local stakeholders, community and businesses to tackle poor job prospects, high levels of crime, rundown environments, and lack of leadership at local levels.
- Sure Start - £540 million to prepare pre-schoolers for school; local partnerships will bid for funding
- Single Regeneration Budget - £1.3 billion to regional development agencies, to support regeneration schemes, including capital improvements
- Health, Education and Employment zones – ‘focus’ zones to be targeted and managed under the main programs.

‘Bringing Britain Together’ says little about specific asset management approaches. It signals a shift in policy direction but not in funding structures. The central government will continue to fund the majority of public housing and neighbourhood renewal programs.
3.3 Europe

The European policy examples chosen are the Netherlands and Sweden. The discussion is prefaced by the observation that across Europe, legislation is often used to strongly define the aims of renewal and that there is a recognition of the link between renewal and the economic recovery of cities.

The Netherlands

The OECD recognises the approach in The Netherlands as having a ‘social renewal’ emphasis. The approach is multi-sectoral guided by broadly defined legislation. The overall aim is to promote the quality of older areas and prevent decay (Priemus and Metselaar, 1992). The legislation prescribes not only guidelines for policy development but also for processes of implementation, cost management and the setting of milestones.

Local authorities are subsidised and can control the flow of funds to private and social landlords, depending on an assessment of local conditions and what areas require renewal. The national ministry keeps control over new construction funds. Having said this, local government financial contributions are lower in The Netherlands than in other parts of Europe. However, The Netherlands system is regarded as well balanced between central funding and local application (Priemus and Metselaar, 1992).

The Netherlands is one of Europe’s biggest spenders on urban and housing renewal. The policy approach is not based solely on public housing but on any areas that meet a range of social and economic criteria. When an area reaches certain benchmarks, this usually triggers a policy response at the local government level, to distribute funds and resources to that area. Through this system, The Netherlands is said to be successful in bringing general renewal policy and social housing together under a balanced, unified approach.

Sweden

The Swedish approach has been to reduce segregation by providing social housing with amenity that appeals to higher income families as well as the disadvantaged. In the initial post-war phase of this approach, there was some success, but as developments have aged, there has been a tendency for areas to become segregated in the same way that strictly low income housing projects have in other industrialised centres (Cars, 1992).

The response has been to bias policy towards physical improvements and upgrades, with almost 90% of central funds dedicated to programs that seek to improve the physical quality of public homes and environments.
This focus on the physical reformation of segregated areas has led to some improvements in social equality within areas. However, criticism includes:

- the failure of the approach to address the most urgent social problems;
- shifting of segregation from improved areas to other areas; and
- lack of control over outcomes.

3.4 Australia

The Australian experience has parallels with international experience. Here as elsewhere, the dominating principles of public housing policy have been the need to expand public housing stock post-World War 2, and to generate large scale urban renewal. This is typified by the inner area high-rise estates in Sydney and Melbourne, for example, which replaced so-called inner city ‘slums’ in the 1950s and 1960s. Policies more or less focussed on the physical aspects of housing provision.

In other countries, evidence shows a strong association between social disadvantage and public housing estates. This association has become the impetus for significant changes to policy, towards addressing the social implications as well as the physical manifestations of public housing policy. In Australia, evidence tends to show a similar association, but the expression of it is not yet as severe as in the UK or the US, where ghettoization and utter dilapidation is evident in some areas (Badcock, 1996). As a result, Australia has broadly maintained an asset-based approach to policy up to the 1990s.

Recently there have been changes in Australian policy. In the mid-1990s, the broad political momentum of deregulation and exposure to competition of traditional governmental roles, has included the public housing sector. The private sector has been involved in the provision of affordable housing provision, essentially through joint ventures in improvements and construction. The aims of the changes are to rationalise federal spending in the sector, to break the explicit welfare role of housing provision and to introduce asset management approaches to future decisions.

Badcock (1996) assesses the major difficulty with the reform process as the reconciliation of asset management aims and a needs-based provision of housing, compounded by reduced federal and state funding. He suggests the possibility for consistent, socially just outcomes in this climate may be questionable.

State Housing Authorities are responding in varied ways. There is broad recognition that most current housing stock is either actually in poor physical condition, or conveys this impression to the market place and so reduces
market rent value of the estates themselves and surrounding neighbourhoods. Also, there is a recognition that the changing profiles of existing and future tenants are not always catered for by existing stock.

This awareness has generated a wide range of improvement projects. Whether the approaches are addressing social segregation through better integration and social balance, or social justice through equity of access, the challenging financial context remains. Arthurson (1991) argues that greater private sector involvement will continue to be the way ahead. This involvement is subject to adequate returns and whether there will be a sufficient public funds pool to cover return shortfalls.

The main conclusion is that current policy approaches are variable but display certain trends. Faced with changes in financial, economic and social contexts, governments are reacting. They are being moved by the dual pressures of the need for physical asset management and maintaining ‘social deliverables’ such as equality and access. Movement towards the private sector is occurring but at this stage the focus this will take is not resolved.

3.5 Lessons Learned

Given the Australian context and the approaches taken elsewhere, there is a range of lessons that are useful for the development of public housing estate policy in Australia.

The experience in the United States appears to be focusing on the supply side with an emphasis on the physical assets. However, the Hope VI policy seeks to balance this approach by directing more funds to community renewal initiatives, and engendering community ownership of renewal. This approach has met with some success.

The Australian and American contexts are different. In the US, the close association of social disadvantage with many public housing projects has required a dramatic shift in policy. Arguably, Australia needs to be mindful of the potential for policy initiatives taken now to have negative social impacts in the future, which would move Australia closer to the US situation.

Whilst the HUD’s test of an asset management approach in the US shows potential cost benefits for the central government, the fact that the approach has not been implemented reflects concern that it might not deliver a socially balanced management solution at the Housing Agency level. An Australian asset management approach may not face the same risk. However, asset management policy should evaluate the potential social impacts of any approach.
The experience in the United Kingdom highlights a need for a cross-sectoral approach to housing problems that are associated with areas of concentrated social disadvantage. But while there is a high level of awareness of what needs to be done there has been insufficient time to evaluate the effectiveness of the models being talked about.

‘Bringing Britain Together’ highlights a range of lessons to be learned from the UK’s past practice in public housing provision. These include:

- Mainstream housing policy has so far failed to make any lasting, positive impacts on social disadvantage;
- Public spending is aimed at addressing symptoms and not causes;
- ‘Verticality’ of government is restrictive creating a lack of joint, cross-sectoral approaches to funding and policy;
- Local co-operation at government level is limited, and the success of vertical government partnerships is questionable;
- Fragmentation and disunity of a broad range of programs;
- Too many rules create inflexibility;
- Emphasis placed too heavily on physical and not social policy; and
- Area-specific approaches are not integrated with each other.

Australian policy should reflect an awareness of these issues.

In Australia, the need to renew estates is largely driven by stock obsolescence. In many cases this involves stock that was planned to be obsolete well before this time. The social problems are not as acute as in many overseas situations.

An observation of the Australian situation is that the current spate of renewals will be a finite process. There will come a time soon when the estates are largely redeveloped and the pressing issues will be whether there is sufficient public rental available to meet needs and whether the sector needs to expand or contract relative to other forms of housing assistance.

Current policy directions elsewhere point to the need for community-based partnerships. These are the key to sustained and maintained improvement. The confidence and abilities of the community must be developed and harnessed. New relationships with ‘outside’ community members such as business and social organisations must be built. Economic initiatives that promote interaction and opportunities must be provided. These elements should be understood as keys to protecting positive changes to asset management practices, to enable estate renewals to be sustained into the future.
Evaluation

The US policy focus on asset renewal has been informed by comprehensive financial analysis but it appears that the narrowness of this approach may have contributed to the lack of progress at the Housing Authority level by underestimating the resources required for tenant management.

The UK, in contrast, is embarking upon a cross-sectored approach and evaluations have taken the form of assessment of ‘best practice’ case studies. These are intended to provide benchmarks for new initiatives. Although not documented specifically in the reviewed literature, it appears that program objectives are being pursued as follows:

- Program objectives are translated into specific project objectives in an inclusive planning process.

- Specific performance measures are implicit in the project objectives (Some are made explicit, particularly financial performance measures).

- Evaluations proceed as the project evolves and new objectives and performance measures emerge.

- Objectives and performance measures from projects that are deemed to be successful are transferred to new projects.

These evaluation techniques, presumable including cost-benefit analysis, are applied on an as-required basis. There is no commonly accepted evaluation framework.
4 REVIEW OF THE CONSULTATIONS

4.1 Current Approach of the States and Territories

Consultations were undertaken with all Australian States and Territories from June to October 1999. Interviews were held with housing authority representatives and nominated case studies were inspected. In summary the issues raised were:

Queensland

- In Queensland the term Urban Renewal refers to investment in the physical fabric of public housing estates. The term Community Renewal refers to wider programs addressing social and economic development, and may include investment in physical fabric.
- Queensland has had an Urban Renewal Program for public housing for a number of years, addressing estate based physical condition, design, amenity and density issues.
- More recently, the Queensland Department of Housing has also been administering a Community Renewal Program, funded under a whole of Government Crime Prevention Strategy. The Community Renewal Program involves a wide range of project and activities to revitalise specific disadvantaged communities. Thus it goes well beyond the scope of public housing physical upgrade.
- The three project areas suggested for evaluation have involved Urban Renewal and Community Renewal.

Tasmania

- Tasmania is suffering from low economic and population growth and property prices are in decline. This has implications for “land harvesting” approaches to renewal.
- The State Government has a program of “Working Together” projects in its infancy. This involves agreements between State agencies and Local Government.
- A Needs Survey has confirmed that, after family support and health support, housing is the next priority.
- A corporate approach is being taken within the Department, eg. housing assessors will make referrals on social support matters.
- Rokeby was a successful physical renewal/ employment/ training project but a fear is that could regress without ongoing commitment. Ravenswood
on the other hand was principally “community development” (the Walk Tall Program).

The need for an integrated approach is also recognised in Tasmania.

**Victoria**

- Projects are triggered by asset condition aspects. Normally there are perceptions of social problems.
- An exception is the Kensington estate which arose because of a pre-election undertaking to demolish a high-rise tower.
- There are few publications dealing with evaluation.
- Evaluations vary from project to project, generally to fit the circumstances. Some are informal and some are quite extensive and formal.
- Some projects have community advisory committees.
- Inner city projects tend to proceed on a no loss of stock basis due to strong demand in these locations.

**South Australia**

- SA is contracting its stock of public rental dwellings. The approach is to harvest land value to replace obsolete stock with new stock. The target is generally one new for 3.5 old. Projects are to be self funding.
- There are many double unit imported kit homes which are clearly unsuitable to keep for public rental. The trigger for projects is the fact that these must be replaced.
- The South Australian Housing Trust (SAHT) is now in the Department of Human Services which results in a community renewal approach being taken. The objective is a sustainable community.
- The SAHT uses private project managers and the approach is to undertake demonstrations, area improvements and even improvements to private properties to lift the image and marketability of the area. This improves the financial viability of the land harvesting process.
- Changing the tenure mix is seen as very important.
- The latest thinking is to look at quality of life issues. Traditional surveys have focused on the effectiveness of work. Advantages of dispersal need to be questioned. Looking for longitudinal data on social indicators. Are networks being destroyed by relocation?
- Education is the key and school success is a critical indicator.
- Skills requirements for the comprehensive approach are a problem.
- Examples of a more comprehensive approach are community policing initiatives and schools partnerships.

SA is moving towards a more comprehensive approach to dealing with the problems in public rental areas. The issue of the effect relocation has on the waiting list has been raised. Thus, it is not just the welfare of relocated tenants
that is important, but the welfare of potential future tenants must also be considered.

**Western Australia**

- There are a number of very similar projects that started at the same time (May, 1995) and for the same reason (obsolete stock - perceived ghetto).
- Projects involve land development, refurbishments, infrastructure and community programs. Private project managers are employed.
- There is a target to dramatically reduce public rental presence in specific areas (to 12%).
- The challenge is to relocate tenants. This is done on voluntary basis but with incentives such as to cover costs.
- Working with police, agencies and schools is considered to be important.
- Aims are to de-stigmatise, balance social mix, encourage home ownership, provide affordable housing, enhance quality of life and increase property values.
- Have memorandum of understanding with Councils in areas affected.
- Stock was old kit homes and walk-up flats

Based on observation, the projects are clearly meeting their objectives of creating vastly improved living environments.

**New South Wales**

- NSW recognises a need for a strong public housing sector on the basis that the private rental market is not a suitable alternative for many people.
- It is acknowledged that public housing is increasingly welfare housing but demand is seen as growing.
- Changing the social mix of estates is not an objective. Estates are acknowledged to require better services and better tenant and asset management but they are seen to continue to have a useful role.
- The Community Renewal Program (formerly Neighbourhood Improvement Program) was set up in 1995 to fund asset and non-asset initiatives, with locally set priorities. A separate asset management and rehabilitation program sets overall priorities.
- An emphasis on tenant consultation is adopted in renewal projects to ensure that tenant priorities are recognised. There is ownership of projects and there is a balance with non-asset initiatives. Other appropriate initiatives are taken in parallel.
- An evaluation technique called Housing Options Appraisal (see Appendix 3) is used (amongst others) to assess projects. It is capable of dealing with asset and non-asset initiatives. The hypothetical saleability of the product of a project is often used as a performance indicator.
Northern Territory

- Darwin has one flat complex with 112 units and an evaluation has been done in response to poor public perception and some tenant complaints. However, no redevelopment is currently planned.
- Darwin (and the NT) has the highest proportion of government-owned housing due to regional development programs operating up until 1991.
- The Territory is disposing of houses deemed to be unsuitable for needs through sales to tenants and public auctions. Revenue is being applied to building (a lesser number of) more appropriate dwellings. Some of the funds are being used for amenity upgrades for public housing in remote areas.
- The Northern Territory is a special case in the Australian context due to the nature of its more transient population, and latterly due to the Defence Force build-up in the north.

Australian Capital Territory

- The client profile of public housing has been moving to reflect increased targeting to those most in need for twenty years.
- A significant number of dwellings are being transferred to community housing. Redevelopment and sales are resulting in a contraction in the total portfolio, reflecting budget constraints and the necessity to refurbish ageing stock.
- The trigger for estate renewal is generally deterioration of the housing stock and/or unsuitability to meet needs. Design shortcomings such as Radburn layouts (e.g., Charnwood) need to be dealt with. In some cases, concentrated social problems (e.g., Condamine) are the trigger. Tenant allocation procedures tend to move problem tenants to hard to move stock.
- There is a government policy favouring a more even spread of public housing across the whole of Canberra but consideration of costs in some areas and the practicality of keeping some concentrated developments temper this.
- The needs of many clients may be better met by smaller dwellings, including medium density developments. However, planning controls in the ACT militate against this.
- There is a very strong demand for singles accommodation.
- Security in estates is a major cost factor.
- The benefits of dispersal vary between clients. For example, some youth wish to avoid certain areas where they may be threatened, some clients need to be near particular services and others prefer a public housing environment.
- De-institutionalisation has turned a mental health problem into a housing problem.
4.2 Case Studies

Housing authorities in the States and Territories were requested to nominate public housing estate renewal projects within their jurisdiction on the basis of what they felt were the 'best' examples, taking into account the brief for the study. The objective was not to pick a representative sample, as the study is not concerned with assessing performance in any way. The main object was to examine evaluation techniques, and in particular, any examples of cost benefit analysis where this had been applied.

The case studies are detailed in Appendix 2 and are summarised below:

**South Australia**

**Projects:** Mitchell Park, Hillcrest and The Parks

**Background:** All three estates are large areas of housing developed in the immediate post-war period with a significant public housing component. Much of the housing is in very poor condition, particularly imported 'kit homes'. The areas are identified with social problems.

**Triggers:** The triggers were the poor condition of the housing, low demand, high maintenance costs and perceived social problems.

**Nature of the Projects:** The SAHT has applied a number of approaches from 'demolition and replacement' to what might be described as 'land harvesting'. The latter involves selling properties to raise funds to replace the stock with a lesser number of public rental dwellings.

The land harvesting approach is designed to preserve and if possible enhance the value of the asset base. Private sector project managers are employed and the estate is repositioned in the market with early improvements in the physical environment.

**Evaluation:** The context for estate renewal is an overarching objective to reduce public housing numbers in the State. The objectives for individual projects relate to reducing public rental.

Detailed financial analyses are done and projects are assessed qualitatively against stated social objectives. Research is ongoing into the social impacts.
Comment: Cost benefit analysis is not applied in the strict sense but many elements of it are present. There are a number of innovations in the South Australian experience including the involvement of the private sector.

The South Australian experience highlights the importance of macro policy settings, that is, decisions taken at the 'program level'. For example, the decision to reduce public rental numbers and to reduce the concentration of public housing in the estates is handed down from ‘above’. Any social effects of relocating tenants from the area can only be effectively dealt with at the program level rather than in the context of an individual project.

Western Australia

Projects: Kwinana and Lockridge

Background: These estates were developed in the immediate post-war period with pre-fabricated cottages and walk-up flats, both with a high proportion of public rental. The areas had become perceived as ‘ghettos’ with houses in poor condition, high vacancy rates and social problems.

Triggers: The high vacancy rates and high maintenance costs were triggers for renewal.

Nature of the Projects: Targets to significantly reduce the public rental presence were adopted through refurbishment and sales utilising Homeswest's ‘Goodstart’ scheme (shared equity) and the ‘Right to Buy’ scheme (rebates to tenants).

A private firm provides project management and local government has been involved.

Evaluation: An independent ‘post hoc’ evaluation was commissioned to verify whether the projects' stated objectives had been met. The projects were assessed to have been successful in relation to:

- destigmatising the area;
- balancing ‘social mix’;
- providing affordable housing; and
- increasing property values.

Relocated tenants were not studied.
Comment: Decisions on how the projects were to proceed were made early and clear objectives were set. The role of evaluation was to check this after substantial commencement.

Queensland

Projects: Inala, Riverview and Manoora.

Background: Inala is a post-war estate with a high proportion of public rental. Much of the housing is prefabricated dwellings. Riverview is an area with a high concentration of public housing, poor and inadequate infrastructure. Manoora in Cairns similarly has mainly social problems in a large concentration of public housing, for the most part in good condition.

Triggers: The physical condition, social problems and inappropriateness of the housing stock (family homes) to meet demand (smaller households) was the trigger for renewal in these areas.

Nature of the Projects: Queensland has a program of crime prevention and under this the approach in public housing estates is termed ‘community renewal’. Initiatives are taken in relation to stock upgrades reducing the proportion of public rental. Programs to work with communities are put in place.

Evaluation: ‘Community Action Plans’ make provision for a formal evaluation process but to date there is no system in place to assess the social return of the projects. A range of indicators relating to social outcomes, perceptions, diversity and funding have been developed.

Comment: The Queensland experience is unique in the Australian context to the extent that the ‘community renewal’ approach is applied. However, evaluations are partial at this stage and the extent to which co-ordination between agencies persists is still to be established.

New South Wales

Projects: The projects are Waterloo, Ballambie and Macquarie Fields.

Background: The Waterloo Estate (2,600 dwellings) is a high-rise development in inner Sydney. Bellambie is a ‘Radburn’ estate located in Wollongong constructed in the 1960’s and 70’s and Macquarie
Fields is a 1970’s estate in Sydney’s western suburbs – again along Radburn principles.

**Triggers:** The Waterloo estate had become a concentration of the highly disadvantaged and has become stigmatised as a result. In Bellambi and Macquarie Fields the high concentrations of social problems and perceptions that these were exacerbated by the physical (Radburn) layout were the triggers.

**Nature of the Projects:** The Waterloo project is essentially a progressive refurbishment and upgrade of standards and includes close consultation with tenants. Bellambi and Macquarie Fields are dealing more with issues of physical layout, also with community development programs.

**Evaluation:** New South Wales projects are subjected to the ‘Housing Options Appraisal’ system – reviewed separately in this report.

**Victoria**

**Projects:** The projects are the Olympic Village, the Hotham Estate and the Kensington Estate.

**Background:** The Olympic Village estate was constructed in the 1950’s with brick and concrete houses and walk-up flats. The Hotham estate had concrete walk-up flats and the Kensington Estate had a high-rise tower earmarked by the Government for demolition.

**Triggers:** The Olympic village stock was in a deteriorated state and no longer met needs. The walk-up flats had become difficult to let on all estates. The trigger for demolition of the Kensington high-rise flats was a government pre-election commitment.

**Nature of the Projects:** The Olympic Village project commenced with community consultation and ultimately a Joint Venture partner was taken on to undertake construction, refurbishments and to produce private housing. The Hotham Estate was basically a reconstruction in a form better suited to the local area. The Kensington project involves demolition of one tower, refurbishment of two, demolition of walk-ups, townhouse construction and purchase of other dwellings in the area to maintain numbers.
Evaluation: The evaluations undertaken reflect the particular needs of the projects. There was an emphasis on the assets as public rental numbers were being maintained (or increased) and the new stock was anticipated to be well received and more suited to needs.

**Australian Capital Territory**

Projects: The projects are Condamine Court and Charnwood.

Background: Condamine was a complex of very small bedsits in an inner area of Canberra originally designed for temporary public servant accommodation. Charnwood is a suburb of Belconnen developed along ‘Radburn’ lines with a 26% public rental component.

Triggers: The Condamine units were deemed to be unsuited to tenant needs and social problems were experienced. Houses in Charnwood were difficult to let. There were social problems and high maintenance costs.

Nature of the Projects: Condamine is based on remodelling the buildings with public rental, joint venture and private components undertaken in three phases. Innovations in ‘ecologically sustainable development’ were incorporated. Charnwood is based on capital improvements to reverse some of the Radburn principles. A reduction in the public rental presence is envisaged.

Evaluation: Evaluations on financial performance have been done with a target rate of return of 7% (market rent/ capital value). Individual aspects of the schemes have been examined from time to time.

**Tasmania**

Projects: The projects are Rokeby in Hobart and Ravenswood in Launceston.

Background: Rokeby is a ‘Radburn’ public rental estate developed in the mid 70’s. Ravenswood is an estate built in the 1970’s remote from Launceston.

Triggers: Both estates were experiencing high turnover rates, low occupancy rates, damage and perceptions of social problems
and stigma. In Ravenswood the problems were seen to be more of a social nature than the layout of the estate.

**Nature of the Projects:** Both projects incorporated wider aspects of social support and incorporated ‘community building’ initiatives.

**Evaluation:** the Rokeby project adopted specific objectives at commencement and evaluations have focussed on these. No formal evaluation of the Ravenswood initiatives have yet been undertaken.
4.3 Common Themes in Estate Renewal Practice

An overview of estate renewal practice as reflected in the case studies is provided in the Table overleaf. It can be seen that obsolescence and unsuitability of the housing for current needs is more often the trigger for renewal. But closely related to this is the perception of social dysfunction. Most of the cases looked at concentrate on asset renewal, but there are examples of combined community renewal approaches. In some instances there is a desire to reduce the presence of public rental in the area in question.

Community Renewal

Community renewal is a term used to describe projects that go beyond asset renewal to tackle social dysfunction in a population. Such projects aim to build the ‘social capital’ of an area and they can in some instances be entirely focused on this aspect and have little to do with the physical fabric of an estate.

There is an emerging concern that while the reductions of the public rental presence have resulted in a better outcome for public rental tenants who remain, there may be costs imposed on relocated tenants and on those waiting for accommodation in the area. There is a debate about whether these impacts are best addressed at the ‘program level’ (i.e. taking an overview of needs in the region) or on a specific project basis.

It is common in the evaluations undertaken to assess the asset value and market rent enhancements achieved, and to relate this to the amount of capital invested. There is an inherent logic in this approach as it points to outcomes that preserve or enhance the asset base and hence the ability to deliver benefits to clients.

However, there are some concerns that the social costs of accommodating fewer households in the area where this occurs are not fully recognised in the evaluation.

Cost benefit analysis is not being applied in any formal (i.e. theoretically robust) sense. There are elements of the technique in the financial analyses being carried out and in the various social impact assessments, but there is no common framework.

As to whether cost benefit analysis would be a useful tool the practitioners consulted expressed some interest but there are no firm views. There is some interest in testing this proposition.
There is no common approach to evaluation although most projects are subjected to financial assessments. The format of these varies to suit the nature of the project and the issues at hand.

Anecdotal evidence suggests that most projects are highly successful where significant improvements in housing standards and neighbourhood amenity occur and where the public rental presence is considered to be at an appropriate level. Potential adverse social impacts associated with tenant dislocation are widely held by practitioners to be adequately managed.

The literature tends to focus on the concept of social disadvantage and the need for a more holistic approach to addressing these problems, the fostering of partnerships and the need for monitoring and evaluation. The case studies have confirmed that these aspects are addressed unevenly across the nation and there are no examples of a single exemplary model.

The case studies do however draw attention to one aspect of successful community renewal projects and that is the role of financial incentives. The projects that were in receipt of Better Cities Program funding, for example, were reported by some practitioners to be very successful in galvanising agencies, with a prior history of non co-operation, into partnership arrangements. Community leaders, it seems, respond to pecuniary stimuli on behalf of their constituent communities. Participation in the development of community renewal strategies is forthcoming when there is a known prospect of concrete action and the availability of funding provides solid evidence of this.
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Overview of Renewal Practice as Reflected in the Case Studies.
5 EVALUATION IN ESTATE RENEWAL PROJECTS

5.1 An Overview of Evaluation Techniques

There are a number of evaluation techniques that are potentially applicable to public housing estate renewal projects. Of these the following are possibly the most relevant:

- Financial Analysis
- Cost Effectiveness Analysis
- Cost Benefit Analysis
- Planning Balance Sheet
- Goals Achievement Matrix

These are summarised below and following is a more detailed treatment of cost benefit analysis on the basis that this technique is central to the brief for this study.

Financial Analysis

Sometimes referred to as commercial investment analysis, financial analysis is undertaken from the perspective of a corporate entity (e.g., a Company or a State Housing Authority) and it is concerned with maximising profits given incomes and expenditures over time, each of which are based on the prices of traded goods and services.

Financial analysis is not concerned that prices might not represent social value, in fact there is an incentive to use commodities that are under valued in this way. Nevertheless, the techniques of financial analysis form the basis of cost benefit analysis in that all costs and benefits are translated into monetary values. A discount rate to take account of the effect of time on the value of money is applied. Department of Finance Guidelines advocate that a financial analysis will often be required to proceed a cost benefit analysis (DoF, 1997, pp87,88)

Cost Effectiveness Analysis

Cost effectiveness analysis is used to compare alternatives that are equally effective in achieving a stated goal. Most commonly, the actual output is quantitatively the same for each alternative and the method is applied to identify the least-cost option. The Department of Finance Guidelines (DoF,
1997, pp 94-96) refer to a requirement for the alternatives to have a “...common predominant effect”.

An example is an output, which is to procure a set number of dwellings of a specified standard in a certain location. The alternatives might be to redevelop properties, to sell and re-purchase or to enter into joint venture arrangements. Applying the discounted cash flow techniques of financial analysis to identify the least-cost option in present value terms identifies the most cost-effective alternative.

Cost effectiveness analysis can avoid the need to value benefits in money terms, provided they can be measured in some other way as in the foregoing example. However, many evaluations involve quantitatively different outcomes associated with the different alternatives. In these instances cost benefit analysis may assist.

**Cost Benefit Analysis**

The theory of cost benefit analysis is dealt with by the Department of Finance (1997) and in numerous other texts (eg. Mishan, 1977; Musgrave, 1969, Sugden and Williams, 1985). Cost benefit analysis differs from financial analysis in that it is from the overall society’s perspective. Costs and benefits are valued in terms of the claims they make or the gains they provide to societal welfare. The perspective is a global one, rather than that of any particular entity. Nevertheless, the discounted cash flow techniques of financial analysis are still employed.

The technique differs from cost-effective analysis in that costs and benefits are, as far as possible, expressed in money terms and hence are directly comparable with one another. There are a number of basic concepts:

- **Opportunity Cost** – costs and benefits are priced at their value in their best alternative use, which may be above or below the actual cost of production.
- **Willingness to Pay** – alternatively, costs and benefits are valued at what the marginal or last consumer in a competitive market is willing to pay for them.
- **The Cost Benefit Rule** – When the ratio of benefits over costs measured as described above is positive the project is worthwhile.

In many instances the signals that market prices provide are either absent or they fail to reflect the opportunity cost of the resources involved. There are techniques to shadow price by reference to the value of intermediate goods consumed or produced (eg. travel cost savings). Cost benefit analysis also accounts for externalities or unmarketed spillover effects (eg. pollution affecting third parties).
By definition, distributional effects are not accounted for, but identifying the winners and losers, most usefully in the form of a distributional incidence table, can rectify this. Where income changes arise, attention should be given to the value of marginal income changes to different income groups.

Cost benefit analysis is often criticised for its emphasis on financial criteria but it is difficult to envisage another unit of measurement that can be applied to a wide range of variables. It is recognised though, that many analyses will involve certain intangibles, but these will defy comparison in any technique that might be employed.

Perhaps the greatest shortcoming with cost benefit analysis is its reliance on economic concepts that are not widely understood. It will be an objective of the section below to demystify some of these concepts, at least insofar as they relate to public housing estate renewal projects.

Real Options Theory
This is a theory that acknowledges the shortcomings of evaluation techniques based on discounted cash-flow analysis. These shortcomings include the difficulties experienced in getting cash-flow projections right and in setting the appropriate discount rate.

Conventional approaches assume that when assets are acquired they are held passively for the life of the project, but in reality they are not. Managers are normally employed to monitor the situation and to develop new strategies as time goes on. Why then should the discount rate applied today, which incorporates a risk factor, be applied to assets that may or may not be kept, or indeed to other assets that may or may not be acquired in the future?

Put another way, real options theory postulates that a risk adjusted discount rate should only be applied to benefits and costs that are committed absolutely at project inception. The scrap value of assets should be recognised if a project is aborted part way through or changes direction.

Real options theory has its origins in the valuation of share options and it has been used in the mining and forestry industries. But its application to public policy programs is not apparent, despite the fact that many programs do actually proceed on a tentative and responsive basis. For example, South Australian public housing estate renewal projects have proceeded in a step-wise fashion with lessons learned from early stages informing the approach to subsequent stages. In Victoria there are examples of projects where the potential costs of tenant dislocation are effectively managed away and the nature of the project is largely determined by this approach; and there are other examples in most jurisdictions.
Planning Balance Sheet

This evaluation technique systematically identifies communities of interest and sorts them into producers and consumers. The objectives of each group are determined and scores are given based on the relative performance of alternatives for achieving the objectives. The scores are then added to rank the alternatives.

The technique suffers from the subjectivity of assessments and the problem of the relative importance of objectives. To achieve some form of consensus on these issues it is necessary to hold extensive consultations with producers and consumers. Alternatives are ranked on an ordinal scale and there are difficulties comparing evaluations from one situation to another.

Goals Achievement Matrix

This technique is similar to the Planning Balance Sheet with the difference being that program goals are identified rather than the objectives of different communities of interest. Performance measures are identified for the goals and the relative performance of alternative programs is assessed. Weightings can be given to the goals and total scores arrived at. Again, the effectiveness of this technique requires in-depth consultations.

The technique similarly suffers from the subjectivity of assessments and the problem of the relative importance of goals. Alternatives are still ranked on an ordinal scale and there are difficulties comparing evaluations from one situation to another.

This brief review of alternative evaluation techniques perhaps highlights one of the strengths of cost benefit analysis – its ability to have a degree of comparability between evaluations. This can be achieved by adopting agreed money values for the variables that are likely to be dealt with in any given situation. Research can be done once on these variables rather than relying on subjective judgements on a case by case basis.

5.2 Applicability of the Evaluation Techniques

While a principal objective of this research is to develop a cost-benefit methodology for assessing the social and economic impacts of public housing renewal projects in Australia, this does not necessarily advocate that the technique is the preferred technique in all instances. In fact, there are aspects of cost benefit analysis that result in it being an inappropriate technique in some cases.
The major drawback with cost benefit analysis is that in attempting to deal with the overall net benefit to society this includes consideration of indirect benefits which are often difficult to quantify, let alone value in dollar terms. In the absence of guidelines on the appropriate values to adopt, the technique becomes merely a financial analysis with some account given to wider issues. It might be preferable to acknowledge this and adopt one of the more systematic methods such as a balance sheet approach or multi-criteria analysis. The Goals Achievement Matrix outlined above is an example of this.

Cost Benefit Analysis is seldom an appropriate technique to apply in retrospective (ex-post) evaluations. It may have application in evaluating options prior to commitment (ex-ante evaluation), subject to the above comments, but after commitment, the project objectives and the performance measures that were adopted become the prime focus of interest.

The review of Australian experience in this report has basically confirmed that this is the case. Cost benefit analysis is not widely applied and financial analyses are at the core of most evaluations. The consideration of indirect costs and benefits varies widely and the techniques applied are selected to suit the particular circumstances of the project.

A further aspect of cost benefit analysis is that it has greater applicability when options being evaluated are profoundly different. The options might be differentiated in terms of key variables such as the net number of dwellings remaining.

When the options are substantially the same in terms of outcomes, and particularly aspects such as social impacts, it is likely that techniques such as cost-effectiveness analysis will be more appropriate.

Nevertheless, despite the qualifications on the applicability of cost benefit analysis the technique would still appear to be useful when applied to larger projects in ex-ante evaluations of the options available. The shortcoming would still be a lack of guidance on valuing indirect costs and benefits but this could be rectified with comprehensive research at the program level.

5.3 Cost Benefit Analysis in Australian Public Housing Estate Renewal Projects

In this section the costs and benefits normally assumed to be associated with public housing renewal projects are discussed and in the next section their relevance to cost benefit analysis is explored.
Types of Costs and Benefits Normally Considered

It is useful to distinguish in the first instance between the direct and indirect benefits of a project.

Direct costs and benefits relate to the specific objectives of the intervention. In public housing renewal projects these generally include:
- the opportunity cost of employing the land and improvements in question (that is, capital not realised by selling the assets on the open market);
- The benefit derived from the proceeds of sale of land and improvements (eg. houses) not being employed in the project;
- the benefit derived from the proceeds of sale of all of the employed assets (land, houses and infrastructure) at some point in the future (normally on project wind-up);
- the capital costs of housing and infrastructure;
- the recurrent costs associated with housing and infrastructure;
- tenant relocation costs such as removal costs and compensation; and
- benefits for tenants of high standard dwellings, good neighbourhood amenity and reduced stigma.

Indirect costs and benefits relate to by-products of the intervention. In public housing renewal projects these generally include:
- changes in access to social support networks for relocated tenants (often, but not always, thought to be of an adverse nature);
- changes in housing opportunities for prospective public rental tenants (often, but not always, thought to be of an adverse nature for people on waiting lists if the project results in a net reduction of dwellings);
- benefits for other residents in the neighbourhood of higher standard public rental dwellings, better neighbourhood amenity and reduced stigma (note these are grouped together because they lend themselves to a single measure of their aggregate value – market rent increment); and
- benefits of society-wide reduced social dysfunction as reflected in social indicators (for example, on crime rates, health, employment, etc.).

Indirect costs and benefits are of course difficult to quantify – an issue dealt with below.

Can these Costs and Benefits be Included in a ‘Theoretically Robust’ Cost Benefit Analysis?

It must be borne in mind that cost benefit analysis values costs and benefits in terms of the claims they make or the gains they provide to the welfare of society as a whole. The perspective is a global one, rather than that of any particular entity.
Applying these principles to the above list of notional costs and benefits reveals the following:

- The opportunity cost of employing the assets owned at the commencement of the project is a cost to the public housing authority but not to society as a whole. A transfer of ownership has financial implications for the parties involved, but no resources are created or consumed in doing this.
- The proceeds of surplus asset sales, in a similar fashion to employed assets, are merely a transfer of ownership.
- The proceeds of sale of all assets on project wind-up are also a transfer of ownership.
- The capital expended on housing and infrastructure improvements does represent consumption of the society’s resources and should be included as a cost in a cost benefit analysis. Similarly, recurrent costs, and tenant relocation costs are included.
- Benefits to tenants from better standard dwellings, improved neighbourhood amenity and reduced stigma are direct benefits that add to societal welfare and should be included. They are however non-financial benefits and the issue of determining their value arises.
- All of the indirect costs and benefits (tenant changed situation, impact on prospective tenants, better amenity and reduced stigma for neighbours and reduced social dysfunction) are additions and subtractions from societal welfare and should be counted.

Thus the only financial costs and benefits that comply with cost benefit analysis principles are net changes in capital and recurrent expenditure. The indirect costs and benefits listed above comply also.

The problem with this is that project evaluators in a real world situation are required to establish that assets are optimally employed in a financial sense and often this takes precedence over the indirect costs and benefits. This calls into question whether a theoretically pure cost benefit analysis is the right tool.

At the program level net changes in capital and recurrent expenditure and the indirect costs and benefits associated with these are quite clearly the most important factors and cost benefit analysis is certainly applicable. However, when resource allocation decisions are made at the project level the question becomes one of managing the assets effectively to achieve stated policy goals.

It follows that a combination of financial analysis and some of the techniques of cost benefit analysis can be employed but it should be made clear that the technique is not a pure cost benefit analysis in a theoretical sense.

The term Sectored Cost Benefit Analysis has been coined to describe the technique on the basis that it deals with costs and benefits from the perspective of the public rental sector. Thus transfers of assets in and out of the sector become important and can be included.
**Other Costs and Benefits**

The costs and benefits reviewed above are those most often referred to in the consultations for this study. However, there may be other costs and benefits to be incorporated in some analyses, such as those associated with:

- Broader regional economic development benefits – gains to the economy from leveraging in investment.
- Broader benefits of environmental improvements – more ecologically sustainable forms of development.
- Possible increase in social dysfunction when prospective tenants are adversely affected.

Larger projects may need to consider incorporating these factors.

**Valuing Costs and Benefits**

In many instances the signals that market prices provide are either absent or they fail to reflect the opportunity cost of the resources involved. There are techniques to shadow price by reference to the value of intermediate goods consumed or produced. Cost benefit analysis also accounts for externalities or unmarketed spillover effects.

The order of discussing these costs, from financial to ‘social’, does not reflect their priority. It is a convention in cost benefit analysis to posit financial analysis at the core, and to progressively add non-financial aspects.

Following is a discussion of how real world costs and benefits in a Sectored Cost Benefit Analysis might be valued.

**The opportunity cost of employing the land and improvements in question.**

This is an important cost to be accounted for on the basis that options that utilise more or less land, or high and low value land, can be compared. The value is simply what the land could be sold for and it can be assessed using normal valuation techniques.

**The benefit of selling land and improvements not being employed in the project.**

This is a simple one-off benefit valued on the basis of willingness to pay as established in the real estate market.
Sale of Assets on Wind-up

This is a real financial benefit that must be accounted for, but it is often the case that wind-up is very much in the long term, say fifty years plus. The present value of a financial benefit this far out is quite minimal and does not therefore influence the analysis to a great degree (for example, the present value of $1mil. in year 50 at a discount rate of 5% is only $87,000).

Capital Costs

The capital costs of housing and infrastructure are clearly up-front cost items to be included.

Tenant Compensation Costs

The capital costs of compensating tenants are also up-front cost items that must be included.

Benefits to Tenants

The benefits of high standard dwellings, good neighbourhood amenity and reduced stigma are quite real but these in themselves are intangible concepts. Nevertheless, it is often held that they have an imputed market value in that consumers are willing to pay market rent for these attributes.

In economic theory it is postulated that market prices will in many cases under-value costs and benefits because there are some consumers who are willing to pay more. It is said that they benefit from the fact that the equilibrium price (where supply meets demand) is set in a competitive market by the whole body of consumers whose willingness to pay for a commodity varies. The willingness to pay not tapped by the market price is termed consumer surplus.

Measuring consumer surplus requires sophisticated econometric techniques that are normally beyond the scope of any individual evaluation project. It is arguable that in the absence of such research it is sufficient to simply recognise that market rent may under-value benefits and to include this in the sensitivity analysis.

In addition to the consumer surplus argument there are other reasons why market rent should be used with caution as a shadow price for benefits to tenants. It arguable that public rental is a superior good to private rental, particularly with respect to security of tenure. Indeed, the Industry Commission (1993) in its review of public housing supported this notion.
However, there are arguments running counter to this. In some instances public housing is difficult to let and private rental in the same area is in strong demand. Rent assistance policies may have some influence on this. Security of tenure is also being eroded somewhat by current allocation policies.

A further problem with market rent is the fact that market rents are set by the willingness to pay of people who have a different situation to the average public rental client. There are differences in incomes and locational preferences, for example.

It is apparent that the relative value of public rental to private rental is heavily influenced by program delivery policies at the macro level and is not therefore usefully dealt with at the individual project level.

Tenant Relocation Costs/ Benefits

It is strongly advocated by practitioners in the field that any potential costs are minimised if not removed by tenancy management initiatives (reflected in tenant relocation costs). These include waiting for natural vacancies, relocating to the same area, making relocation voluntary, relocating to superior accommodation, providing compensation, and providing support and consultation. In some cases move back options are provided.

Nevertheless there have been some examples of disaffected tenants and in some cases there has been discrimination against tenants in predominantly private housing areas.

Essentially the perceived problem is that long established social and support networks are broken and the replacement of these may be problematical in alternative locations.

The South Australian Department of Human Services, for example, is exploring this issue and has developed ‘performance indicators’ which include indicators of ‘social exclusion’. The indicators do not in themselves correlate with costs or benefits, but they potentially provide a basis for ranking the before and after situation. The indicators cover (inter alia):

(The indicators underlined are those with a potential to provide a basis for shadow pricing costs).

**Physical Environment:**

- Proportion of public rental
- Proportion of ‘double units’ (known to be poor housing in SA)
- Proportion of old stock
Economic Environment: Capital value movement
Vacancies

Social Environment: Unemployment rate
Proportion low income
Proportion transfer payments
ABS index of social disadvantage
Child protection notifications
Domestic violence assessments
Proportion of sole parent families
Car ownership
Age of population
Housing turnover

Crime: House theft
Assaults
Adult imprisonment
Juvenile detention

Education: School leaving
Basic Skills Test
Truancy

Health: Community mental health clients
Community mental health services
Acute inpatient separation data

Note that these indicators are summaries only of the South Australian list. This is provided to illustrate the scope of such an approach. The indicators underlined are those with a potential to provide a basis for shadow pricing costs. The basis of the valuations would be costs generated through deterioration in the indicators. For example, there are potential costs in transfer payments, support services, crime prevention and detection, and health services. In addition there are costs to the economy from a poorly educated, unhealthy and poorly adjusted workforce.

A Note of Caution
It is apparent that dealing with these types of costs will be extremely difficult on a project by project basis and this research should be done at the program level with guidelines to be provided to program evaluators. Such guidelines might suggest a shadow price to be taken into account for tenants with certain characteristics if they are forcibly relocated. It must be borne in mind though that the other benefits of a project (eg. reduced stigma for tenants remaining) may still render it beneficial in net terms. The fact that there are some losers will need to be taken into account when assessing the distributional effects.
Reduced Housing Opportunities Costs

These costs potentially arise when a project results in a net loss of dwellings in the overall portfolio. While the new stock may be of equivalent value, more ‘normalised’ (reduced public rental presence), in better condition and more suited to tenant needs (see below) reduced numbers may impact on the waiting list (the exception being where the poor standard dwellings have a high vacancy rate).

Prospective tenants, if they have to wait longer on the list, may endure some costs. These could arise because of higher rents (not everywhere the case – and rent assistance must be taken into account) and potentially because of other housing problems relating to security of tenure, overcrowding, etc.

It is quite clear though that estate redevelopment is taking place within a policy context; the main planks in each jurisdiction vary, but can be based on:

- Contracting the size of public rental sector in some areas.
- Reducing concentrations of public rental in some areas.
- Reorienting public housing through greater targeting to people in need.
- Normalising public rental in some areas.
- Harvesting land value to redevelop estates (to provide higher standard / better configured housing, albeit with fewer dwellings)

In this context it would be a futile exercise to expend resources in a project evaluation on attempting to value costs and benefits that are presented as a fait accompli in the policy framework (i.e. handed down from the program level), unless of course there are locationally specific variations in the pattern of costs and benefits.

This is another clear case for work to be done at the program level with shadow prices developed that can be applied in specific circumstances when locational variations occur. Even with shadow prices determined there would still be an intangible aspect to these costs that should be acknowledged.

Spillover Benefits of Enhanced Neighbourhood Amenity

Other residents in the area also derive the benefits of high standard dwellings, good neighbourhood amenity and reduced stigma. In this instance these spillover benefits can be shadow priced by reference to market rent increments (because, unlike the situation for the public rental tenants, the opportunity cost of capital employed has not been taken into account).
Benefits of Society Wide Reduced Social Dysfunction

These benefits are related to the tenant dislocation costs discussed above with the distinction being that they accrue to society as a whole. There is a clear case here also for shadow prices to be determined at the program level.

It must be borne in mind that public housing estate renewal is often only part of the equation in gaining improvements in social indicators. Usually initiatives need to be taken across the board and some of these (e.g. new schools) can be very costly.

Shadow Pricing

Shadow Pricing is a term encompassing techniques for valuing ‘non-marketed’ outputs. If a public authority produces electricity it can sell this output for a price – it is ‘marketable’.

However, if a public authority produces goods and/or services that address the social problems of dislocated tenants or initiatives that reduce social dysfunction generally it cannot charge the consumer of the service because they are unable to pay – the outputs are not marketable.

Society may be willing to pay through taxes if it can be shown that the benefits outweigh the costs. From “society’s” point of view the benefits might include:

- reduced expenditure on other welfare services;
- reduced expenditure on crisis management – crime prevention and correctional services; and
- reduced transfer payments (eg. unemployment benefits and housing assistance).

These benefits can be valued using the ‘cost savings approach’ – the savings achieved by reducing demand for the social support expenditure.

Another benefit may be the increased productive capacity of an individual relieved of social dysfunction. The value of the benefit is the net value of new production.

Another benefit is the benefit to the individual him/herself of the ‘public good’ they receive. This is difficult to value but governments are charged with the responsibility to make judgements on issues of this nature. Note however, that if the benefits derived from reduced expenditure and increased productive capacity exceed or even come close to the cost, the decision for government becomes very easy.
One method of measuring the cost savings of social support initiatives is to compare populations who benefit from such programs and those that don’t. This can be between demographic groups, different jurisdictions in Australia and between countries. Statistical analysis techniques can be applied.

Longitudinal studies to compare outcomes at times when various services were provided can also be undertaken.

An important contribution that universally agreed values for non-marketed benefits can make is to facilitate comparability between evaluations. Most evaluations are primarily concerned to identify the highest priority area for scarce public funds. Thus comparability is more important than measuring costs and benefits in absolute terms.

Of course, the values given to costs and benefits must reasonably align with their absolute value otherwise costs and benefits will be given more or less prominence in the evaluation than they deserve.

Shadow pricing is quite advanced in such fields as health and transport services and the problems of calibration should be no more difficult in the social support area.
5.4 **Summary of Costs and Benefits Generally Associated with Public Housing Estate Renewal Projects.**

Shown in the Table below is a summary of the above costs and benefits, the basis of valuation and an indication of the parties affected in each instance.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DIRECT/ INDIRECT</th>
<th>BASIS OF VALUATION</th>
<th>INCIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COSTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity Cost on Land and Improvements</td>
<td>Direct</td>
<td>Market (1)</td>
<td>Authority</td>
</tr>
<tr>
<td>Capital Costs – Housing and Infrastructure</td>
<td>Direct</td>
<td>Market</td>
<td>Authority</td>
</tr>
<tr>
<td>Recurrent Costs – Housing and Infrastructure</td>
<td>Direct</td>
<td>Market</td>
<td>Authority</td>
</tr>
<tr>
<td>Tenant Relocation</td>
<td>Direct</td>
<td>Market</td>
<td>Authority</td>
</tr>
<tr>
<td>• Compensation Paid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Extra Tenant Costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenant Dislocation</td>
<td>Indirect</td>
<td>Shadow Price (2)</td>
<td>Relocated Tenants</td>
</tr>
<tr>
<td>• Possible loss of support networks</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Reduced Housing Opportunities</td>
<td>Indirect</td>
<td>Shadow Price (2)</td>
<td>Prospective Tenants</td>
</tr>
<tr>
<td><strong>BENEFITS</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sale of Surplus Assets Up-front</td>
<td>Direct</td>
<td>Market (1)</td>
<td>Authority</td>
</tr>
<tr>
<td>Sale of Residual Assets on Wind-up</td>
<td>Direct</td>
<td>Market (1)</td>
<td>Authority</td>
</tr>
<tr>
<td>Better Living Environment for Public Rental Dwellings.</td>
<td>Direct</td>
<td>Shadow Price -eg. Market Rent</td>
<td>Tenants</td>
</tr>
<tr>
<td>• Higher standard dwellings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Better neighbourhood amenity</td>
<td></td>
<td></td>
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<tr>
<td>• Reduced Stigma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better Living Environment for Other Dwellings in the Neighbourhood.</td>
<td>Indirect</td>
<td>Shadow Price -eg. Market Rent Increment</td>
<td>Other Residents in the Neighbourhood</td>
</tr>
<tr>
<td>• Higher standard dwellings</td>
<td></td>
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<tr>
<td>• Better neighbourhood amenity</td>
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<td>• Reduced Stigma</td>
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<td>Society Generally</td>
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<tr>
<td>• Possible society wide benefits as reflected in social indicators.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Summary of Costs and Benefits Associated with Public Rental Estate Renewal Projects**

**Note:**

(1) Not normally included in a ‘theoretically pure’ cost benefit analysis.

(2) Costs and benefits that would benefit from wider research into appropriate shadow prices.
5.5 A Project Typology and the Stepwise Approach to Cost Benefit Analysis.

The major differentiating features of urban renewal projects from a cost benefit point of view are the types of costs and benefits involved, specifically whether they are direct or indirect and whether their incidence is contained locally or it extends to society generally. Within this context two types of project can be identified.

**Type 1 - Projects with Predominantly Direct Costs and Benefits**

These projects tend to be of a smaller scale and limited in their time frame and they do not change the tenure mix markedly.

The cost categories are:
- Opportunity cost of land and improvements employed.
- Capital costs of development.
- Recurrent costs.
- Tenant relocation costs (to the extent relevant).

The benefit categories are:
- Sales of land and improvements.
- Sale of assets on wind-up.
- Benefits to tenants reflected in market rent.

**Type 2 - Projects with Potentially Significant Indirect Costs and Benefits**

These projects may be of a medium to larger scale and of a medium to longer time frame and they may change the tenure mix noticeably.

In addition to Type 1 above the costs may include:
- Potential tenant dislocation costs.
- Potential housing opportunity reduction costs – perhaps regionally specific.

In addition to Type 1 above the benefits may include:
- Spillover benefits to other housing in the area reflected in market rent increments.
- Potential for society-wide reduced social dysfunction benefits.

It has been suggested above that the measurement of certain potential indirect costs are best researched and calibrated at the program level. Taking this into account and given the types of projects outlined above it is appropriate to approach cost benefit analysis in a stepwise fashion as follows:
- Step 1 is an analysis that deals only with direct costs and benefits. In many cases this will suffice for the Type 1 projects described above.
• Step 2 is an analysis that adds the indirect costs and benefits.

5.6 Formulating Options for Analysis

In situations where there is a reasonably clear direction set for estate renewal and the options relate to minor variations in approach, cost benefit analysis, as discussed above, is most likely not the appropriate technique to use. To illustrate this point the following questions represent examples of profoundly different options:

- Should the land be sold and the dwellings replaced on cheaper land elsewhere?
- Should the tenure mix upon completion be 100% or 75% or 25%?
- Should the number of dwellings retained be 3,000 or 2,000 or 1,000?
- Should the dwelling types be high-rise flats or walk-ups or medium density or detached houses?

Potentially included in this list would be questions relating to the amount of housing to be sold to sitting tenants. However, a decision on whether this is a profound difference will depend on the degree to which this will occur.

The social aspects and related indirect costs and benefits of the options illustrated above will produce noticeably different outcomes. In contrast, the following questions represent examples of options where the differences are subtler:

- Should there be a more or less extensive consultation program?
- Should there be a greater degree of community management of the estate?

Options such as this are a product of the policy settings adopted by the authority at the program level and reflect the prevailing philosophy on social housing provision. They do not normally arise because of the particular circumstances in any given estate. Although it is acknowledged that on large estates new issues of this nature can arise.

Thus the selection of options and the adoption of an evaluation framework necessitates an integrated process on a case by case basis.
6 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 Findings

The Linkages between Public Housing Estates and Social Dysfunction

The case studies have confirmed a spatial coincidence between some public housing estates and various indicators of social dysfunction, such as unemployment and crime. Often, this coincides with dwellings in poor condition.

But poor dwelling stock is not always present. In Tasmania and in some Queensland and New South Wales examples, the condition of the dwelling stock is good, but various social problems persist. This suggests that there may not be a strong causation effect.

There is evidence though, that with an increasing need to accommodate more socially disadvantaged and problematical tenants, there is a tendency to concentrate them in the least desirable stock available. Thus tenancy management practices can have an influence on the creation of areas of social disadvantage.

High rise apartments are a case in point. There are examples of vibrant and sustainable communities in some estates where the tenants are appropriately matched to this form of housing. When the tenants are inappropriately matched or they have special social support needs that are not met there are invariably social problems.

There are strongly held views amongst practitioners that dispersing socially disadvantaged households results in fewer social problems in aggregate. This is based on a view that spatial concentrations of social disadvantage become crucibles of crime and anti social behaviour and these values are passed on from one generation to the next. Little solid research to confirm or deny this proposition has been revealed however.

The Nature of Problems Being Identified in Public Housing Estates.

The major problem being faced in most estates is the simultaneous obsolescence of large numbers of dwellings. This is due to the fact that so many were built in such a short space of time in the early post-war period. In addition to obsolescence there is the mismatch to current needs. Many estates are located in areas where their original reason for being has disappeared (eg.
closed resource and manufacturing industries) or they are designed for family accommodation where the demand is now towards smaller households.

In some jurisdictions the response is to harvest the value of the land by various means; invariably resulting in fewer dwellings but of a much higher standard with low maintenance costs and much better suited to tenant needs. On the whole, estate renewal is proceeding very efficiently from this point of view. In most cases careful attention is being paid to tenant welfare and considerable effort is expended to ensure that any potential dislocation effects are averted.

In the future though, there may be fewer opportunities to re-accommodate tenants. This is potentially an emerging problem that should be addressed now.

**The Stated Objectives of Renewal Projects**

All projects state their objectives in different ways but recurrent themes are - better quality housing, appropriate tenure mix and sustainable communities. Lower costs and adequate returns on assets are often mentioned.

Most projects have as their principal objective the upgrading of obsolete stock, with changing the tenure mix being important also. But some projects are exclusively about community renewal as opposed to asset renewal.

Thrown into stark relief though, is the fact that project objectives (ie. Relating to the estate in question) are subservient to program objectives (ie. Relating to the overall approach and policies applied by the Housing Authority), which in turn are dictated by macro policy settings, including the level of funds available to pursue estate renewal activities.

Decisions are sometimes made at the State program level that a reduced public housing presence in designated areas is required. In this context it would appear to be futile to evaluate the impact of reducing public rental dwelling numbers on a project by project basis.

**The Range of Activities Being Undertaken**

The range of activities involved in the projects examined includes:
- Dwelling upgrades;
- Dwelling sales;
- Demolition and replacement or sale of land;
- Neighbourhood amenity upgrades;
- Infrastructure provision and enhancement;
- Joint ventures with the private sector;
- Outsourcing of project management;
- Incorporation of innovative design solutions;
Partnerships with local government and/or other agencies;
Integrated employment and crime prevention programs;
Integration of various forms of community support;
Research and feasibility studies;
Consultation and tenant relocation programs.

There is no one model being applied as the circumstances vary between projects. However, a recurrent theme is the need for a more cross-sectoral approach to tackling the social problems of the people involved. There is a call for partnerships to be put in place to tackle these problems.

Lessons From Overseas

The literature on experience overseas highlights some of the differences to the Australian experience in the scale of estates and systems of governance. However, a common theme in contemporary approaches is a realisation of the necessity to improve the life position of people in disadvantaged areas.

It is becoming increasingly recognised that:
- For those who are able to work, access to sustainable mainstream employment is essential and education and training is the key to success.
- It follows that locally-based initiatives, while making a positive contribution, do not produce long term results.
- Delivering assistance requires a concerted and sustained effort with strategies tailored to the particular circumstances at hand; considerable resources will be necessary.
- Area focused strategies are required with an integrated (holistic) approach to service delivery - partnerships are required.

It is acknowledged that there are few references to evaluations of these approaches including any longitudinal studies to test their effectiveness. The case studies have revealed that successful examples of community renewal seem to have one thing in common; there is funding available that is contingent upon productive partnerships being formed. The prospect of funding and hence of concrete outcomes being achieved is a catalytic factor in bringing community leaders to the fore and in galvanising community interest and action.

This raises the prospect of developing a new model for community renewal in areas of concentrated social disadvantage. A pool of funds could be created, not from extra grants (although these would be desirable), but from pooling a proportion of existing funds from a range of program areas. For example, funds could be pooled from housing, education, training, employment and related budgets (from all levels of government) to be applied in the most effective way to achieve community renewal in the area in question.
Performance Measures

A performance indicator may be defined as Standardised information by which progress towards efficiency and effectiveness objectives may be measured.

A benchmark may be defined as: The best available ‘score’ on the performance indicator based on the performance of organisations delivering a similar service under comparable conditions – thus representing ‘best practice’.

The role of the performance-oriented approach in management is:
- Quality control in service delivery;
- Emulation of best practice in a particular area;
- To provide information to all stakeholders, central administrators and consumers of services alike.

Thus the performance-oriented approach is intended to operate to benefit all participants. It is not intended to be restricted to a monitoring function from a central administrative body.

South Australia is doing some pioneering work with performance indicators for public housing renewal projects and a long list of potential data items has been identified.

The difficulty faced by program evaluators in framing performance indicators is that national housing assistance programs are often seen to be applied in isolation from each other (e.g., rent assistance and public housing). In this environment it is sometimes difficult to determine what overall outcomes are sought to be achieved.

The various jurisdictions have objectives that are derived from research and strategic planning, but often these are not clearly expressed. Thus public rental housing program evaluation tends to focus on inputs; and gravitates towards testing the cost effectiveness of solutions (making finite funding set by government policy go as far as possible) rather than whether a priori objectives have been achieved. Such objectives might refer to outcomes like the adequacy of supply of public rental (standards, type, location, etc.), affordability, reduced stigma in estates, and so on.

For performance indicators to be useful they must have a clear purpose and this should be to measure whether clearly defined outcomes have been achieved.
The Role of Cost Benefit Analysis

Cost benefit analysis is a very effective evaluation tool, but a shortcoming is the difficulty of valuing non-financial costs and benefits. It also has problems in application due to its economic concepts, which are not widely understood.

However, other evaluation techniques have the same shortcomings. In areas where research has been undertaken into the dollar values that might be given to non-financial costs and benefits there is a measure of comparability between evaluations, even if the actual values remain controversial.

This study has examined the applicability of the technique to public housing estate renewal projects and has found:

- Some projects have their overall objectives set at the program level and there is little point re-assessing these in relation to each individual project. The most obvious example of this is where a decision has already been made to reduce public rental stock. In such cases cost effectiveness analysis (the least cost option for achieving a defined outcome) is potentially more appropriate.

- Cost benefit analysis is seldom appropriate when applied in retrospect. It is more important when a project is complete to evaluate whether the performance measures set for the project at inception have been met.

- Cost benefit analysis is most appropriately applied when the options being considered are profoundly different (e.g. different number of public rental dwellings remaining). When the ‘asset outcomes’ are substantially the same, cost-effectiveness analysis might be employed. When this is the case and the ‘social outcomes’ vary a planning balance sheet approach might be used as well.

This study has adopted the cost benefit approach to suit the particular circumstances encountered in Australian public housing estate renewal projects and has coined the term ‘Sected Cost-Benefit Analysis’. The types of costs and benefits likely to be encountered have been identified and a stepwise approach to analysis is developed (Appendix 4- Draft Manual for ‘Sected Cost Benefit Analysis’). There are potentially benefits to be had from the framework being widely adopted. At its core it fulfils all of the requirements of a financial analysis and it is expandable to incorporate non-financial impact. The main benefit would be comparability of results, which would enable jurisdictions to achieve ‘best practice benchmarking’. This has a potential to achieve more effective resource allocation.
The Next Steps

This study has developed the evaluation technique termed “Sectored Cost Benefit Analysis” for application to Australian public housing estate renewal projects. It is potentially suitable for application to projects in prospect where the implementation options are significantly different. It would be appropriate to test the technique by application to a number of case studies where this is the case.

It is recommended that this report and the draft manual prepared in conjunction with the report be applied to selected case studies to test its usefulness as an evaluation methodology.

With regard to the need for ‘shadow pricing’:

It is recommended that research be undertaken at the national level into developing regionally specific shadow prices for the following:

- Tenant dislocation costs such as loss of social networks upon relocation or by changing the tenure mix of an area;
- Costs to people affected by reduced housing opportunities in a region resulting from estate renewal; and
- Benefits from reduced social dysfunction generally from estate renewal.
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Dear

Australian Housing Research Fund Project Number 212
Public Housing Estate Renewal in Australia

I am writing to you in your capacity as the nominated contact for this project. I believe you have received a letter in the form of “Attachment A” which explains the scope of this assignment.

I realise there are many calls on your time therefore I am keeping this request for information as concise as possible. Would you be so kind as to respond to the following questions. The questions are designed to be answered by a person working in the field without a need for research or information collecting.

• Q1. What are the three or four best examples of estate renewal in your jurisdiction?
• Q2. What evaluations were done prior to commencement?
• Q3. What evaluations have been done during and/or after the project?
• Q4. Has cost benefit analysis been explicitly used?
• Q5. What documentation can you provide on the project itself and the evaluations?
• Q6. Do you feel public housing estate renewal projects can be classified – what categories do you feel are appropriate? (eg. High Rise, Broadacre, Asset Renewal, Community Renewal, etc.).
• What references do you feel we should review on this topic?

Your early response will assist us in preparing for a visit to gather information on the projects you nominate and to inspect them first hand. A response by letter, fax or email would be appreciated by Friday 13th August, 1999. My direct email address is roger@sgs-pl.com.au.

I am looking forward to meeting with you to learn more about your projects.

Yours Faithfully,

Roger Gibbins
DIRECTOR
ATTACHMENT 1
TEXT OF LETTER PREVIOUSLY SENT

I am writing to you regarding an important research project being managed by the Queensland Department of Housing (Public Housing and Community Renewal Group) on behalf of the Australian Housing Research Fund (AHRF). As you will be aware, this fund is administered by the Commonwealth to undertake national collaborative research into issues of interest to State Housing Authorities and the Commonwealth.

The current research project is titled “Public Estate Renewal in Australia”. The project will gather information on the approaches to the renewal of public housing estates being adopted by housing authorities in the States and Territories. The project will improve collective knowledge of the Australian experience and it will develop a cost-benefit evaluation framework to be applied to the social and economic impact of estate renewal initiatives.

The consultant who has been appointed to carry out the research is Spiller Gibbins Swan Pty. Ltd. The main contact is Roger Gibbins who is based in Melbourne. (03 9606 09954 – email: roger@sgs-pl.com.au).

Roger will make contact with each housing authority to collect information on public housing estate renewal projects and to arrange inspections as appropriate. For this purpose he will require a contact of a person who can assist with the project. It would be appreciated if you could nominate such a person and forward the details to Kelli Higgins. Please provide the name, address, telephone and fax details and email address to:

Kelli Higgins
Queensland Department of Housing
GPO Box 690
Brisbane, Queensland, 4000

A “work in progress” meeting will be held in Sydney (venue to be advised) on 19th August, 1999 to discuss key findings from the literature review and the evaluation methodology. Whilst it is not essential that you send a delegate you are most welcome to do so. This will be an ideal opportunity to provide further input to the study and to learn about experience elsewhere. Please advise Ms Higgins of your interest in sending a delegate.

Any queries you may have in relation to this project may be directed to Ms Higgins on (07) 3235 9092.
APPENDIX 2

Case Studies

The case studies carried out for this study are documented below. In each instance there is a section on background, triggers for renewal, nature of the project and the approach to evaluation adopted.

Mitchell Park, Adelaide, South Australia.

Background

The suburb of Mitchell Park, located 9km south of Adelaide, grew dramatically in the 1950’s close to the Chrysler (now Mitsubishi) factory. The area is now very well served with community and commercial facilities and has good access to transport networks. The South Australian Housing Trust had a significant presence in the area comprising 700 semi-detached double units on large blocks (75% of the total housing in the area).

Triggers for Renewal

The semi-detached double units on large blocks were no longer in demand. Most Trust stock in the area was in poor condition and Trust tenants living in the area often suffered a multitude of problems placing pressure on social services such as education, welfare and health facilities. If not addressed, social problems would have increased and compounded the already difficult asset management problems of declining values, increasing maintenance costs and high vacancy rates.
Nature of the Project

When commenced in 1986 the project was based on demolition and replacement with new dwellings for rental. In 1991 the approach changed with a perception that continuing social problems in the area were associated with the relatively high public rental concentration. The Trust now retains a smaller proportion of dwellings.

The Trust’s presence is now around 50% by 2003 and will decrease to around 35%. This reduction in Trust concentration is being achieved by reducing Trust rental stock and increasing the number of privately owned houses.

Approach to Evaluation

The South Australian Government has an overarching policy of reducing public housing numbers but at the same time it is redeveloping obsolete stock to provide higher standard accommodation which is better suited to the needs of clients. A policy published in 1996 focuses on the rights of tenants affected, but it makes it quite clear that relocation will be required in some circumstances, especially when a project cannot proceed without inclusion of a particular property.

At the project level quite detailed financial analyses are done. The Trust has a computer based model designed to test various methods for redevelopment with the outputs including net present value, internal rate of return and return on equity. The options include sell as is, upgrade and sell, demolish and subdivide or joint venture.

In addition, the options are evaluated against established social objectives such as:

- reduce the concentration of public housing and promote home ownership
- improve the social and community amenity of the area
- foster a partnership approach to urban renewal
- improve the amenity and standard of new and existing housing

The option that best satisfies both the financial and social objectives is selected, using an evaluation matrix.

In 1998 the Social Policy Research Group of the University of South Australia was commissioned by the Trust to undertake a Community Perceptions Study in Mitchell Park to assess the social benefit for the community involved in the project area. Overall residents surveyed rated the area as more attractive, quieter and safer than before the redevelopment. Subsequent stages will take into account what is being learned in the present phase.
The Vines - A Component of Mitchell Park

The Vines is a current stage of the Mitchell Park project. Early feasibility studies evaluated three options: outright sale, sale in four parcels and a joint venture. The joint venture was assessed to be superior in terms of net proceeds to the Trust and the present value of Trust proceeds. The strong performance was attributed to the increases in the value of Trust assets in the area. It was recognised that the option had a marginally higher risk.

Benefits reported to be flowing from the project include:
- Reduced concentration of public rental – 84% of newly created allotments have been sold and 11% retained for new Trust rental stock
- Affordable housing for the private market.
- Reduced maintenance costs on Trust dwellings ($823/ dwelling down to $230/ dwelling).
- Improved quality of life as reflected in social surveys.
- Fostering a partnership approach to urban renewal.
- Raising funds from under-utilised Trust assets

Hillcrest, Adelaide, South Australia.

Background

Hillcrest is located 8km north-east of Adelaide. It was a suburb developed in the 1950’s with pre-fabricated wooden houses imported from the UK and Germany. These houses were designed to be temporary accommodation to address materials and labour shortages after the war. The manufacturers brought many of the tradesmen who erected the houses to Australia.

The suburb is now in a highly accessible location and is well provided with community and commercial services. The project area contained approximately 580 timber frame houses of which 350 or 60% were in trust ownership. There are another 150 masonry houses in the area either owned privately or by the Trust. In total the area contained 730 houses spread over 117 hectares.

Triggers for Renewal

By 1990 it was clear that the kit houses were obsolete and required redevelopment. Maintenance costs were exceptionally high and there were significant problems with house movement due to reactive soils.
Nature of the Project

The intent of the project was to utilise existing land and resources more efficiently and effectively and to increase the housing density in the area.

The project also benefited from its proximity to Regent Gardens, a ‘greenfields’ joint venture housing development between the government and the private sector.

A series of objectives both social and physical were developed in conjunction with a community consultation process. These objectives stressed the importance of integration (both physical and social) between the two projects and communities. A Community Trust Fund was established and provided a range of grants over the life of the projects for community development programs, community facilities and to upgrade the amenity of the area especially streetscape and open space enhancement in Hillcrest.

A private firm, specialising in the area, was appointed as project and marketing manager and sale agent with overall management direction provided by a project committee.

The approach was to harvest land value and to convert it into dwellings. A tenet of the financial strategy was to reposition the estate in the market with early area improvement in order to add value to assets sold later. Overall an increase in value of 15% has been reported.

Of the 350 existing houses, 20 were retained, 26 sold ‘as is’ or upgraded and the balance resubdivided to produce approximately 430 allotments.

The trust constructed 37 new houses in the area with an additional 41 constructed by other community groups. A number of the existing tenants were relocated into new Trust homes in the adjacent Regent Gardens development.

Overall the Trust’s housing presence in the area has reduced from a total of 45% to approximately 12%. 
Approach to Evaluation

An analysis of socio-economic indicators and an asset management plan was prepared. After the broad direction was identified a number of planning studies and feasibility analyses were carried out.

A study to investigate the extent to which the social and community objectives for the project had been met was completed in 1997. Overall the study revealed that the objectives had been achieved and in addition that there was a high level of satisfaction amongst the local community.

The Parks, Adelaide, South Australia.

Background

The Parks (now marketed as Westwood) encompasses the suburbs of Angle Park, Athol Park, Ferryden Park, Mansfield Park and Woodville.
Gardens. It is an area of five square kilometres located only seven kilometres from Adelaide.

This project is in its infancy and it represents potentially one of the largest urban renewal projects undertaken in Australia. Of around 5,000 dwellings the Trust owns 2,840 (59%) many of which are double units dating from the immediate post-war era.

**Triggers for Renewal**

The triggers for renewal are the obsolescence of the housing stock, unsuitability for current needs and the perceived over-concentration of public rental in the area. The Trust’s asset management plan and regional guidelines highlighted this area as requiring renewal.

**Nature of the Project**

The intent is to replace the majority of the double units with new and more appropriate housing while increasing the housing density of the area. This is to be achieved with the only financial contribution being the Trust’s land assets. It is anticipated that this will result in swapping 3.5 obsolete houses for one new one. Ultimately, the Trust intends to own only approximately 23% of housing in the area. The project will include an employment/skills development program.

The Trust will contribute its land and houses to the project, while Urban Pacific (SA) Pty Ltd will plan, manage and fund the demolition of 80% of houses, refurbish 20% of the houses, resubdivision of allotments and re-imaging of the area.

The Council will invest $7.5 million which will include up to $1 million for social and economic development.

Four key issues have been identified by the community and form the basis of a community development plan:

- Employment, education and training
- Community safety
- Integration of incoming with existing residents
- Community cultural development

**Approach to Evaluation**

Documentation on the project states the Trust’s overall strategic direction, which is to:

- facilitate sales (principally to tenants and public housing applicants);
- reduce debt;
- redevelop ageing housing estates; and
- upgrade retained stock.
A number of objectives have been adopted dealing with housing outcomes, community development and the physical environment. Amongst the financial objectives are:

- to provide an appropriate financial return relative to risk carried;
- to achieve private equity participation to ensure that the project is, as a minimum, self funding;
- be market driven (being responsive to market demands);
- attract Local, State and federal Government support; and
- attract other forms of private sector investment.

The project had been in receipt of funding under the Better Cities Program and a financial evaluation was carried out at this time. Within the context provided by the above objectives a number of studies were carried out dealing with economic impacts, demographics and community perceptions.
Sustainable Community

The Trust has recognised that despite outside perceptions The Parks has strong community networks within. While many residents have low disposable incomes the social fabric of the area displays much of the closeness and resilience of working class communities, and a degree of pride and self-sufficiency often matched with a co-operative approach between neighbours. There is a high proportion of elderly who rely on these social networks.

The project will necessarily involve relocation and the efficacy of outcomes for tenants will be closely monitored.

The community is diverse in its make up and this will require a variety of responses in all stages of the project requiring extensive and ongoing consultation. Longitudinal studies based on social indicators are proposed.

Two PhD studies on the Project have commenced. The first is developing a Geographic Information System (GIS) model to assist in managing relocations. The second involves an analysis of the social costs and benefits of the Project to residents and the impact of relocations on the community.

Kwinana, Western Australia.

Background

Kwinana is a discrete satellite suburb located approximately 35kms south of Perth connected by the Kwinana Freeway. The area was developed in the immediate post war period to provide workers housing serving the nearby Kwinana industrial estate. The early housing was prefabricated cottages and in the 1950’s and 60’s brick walk-up flats were built. The ‘New Kwinana’ project encompasses the suburbs of Medina, Orelia, Parmelia and Calista.

The suburbs' layout incorporated wide streets and extensive open spaces that are now seen to be major positive features.

Homeswest originally owned approximately 1,300 dwellings at the beginning of the project which was 24% of all dwellings in the suburbs. The public housing presence in Medina was 42%.
Triggers for Renewal

The triggers for renewal were extremely high maintenance costs resulting from the obsolescence of the housing and the high vacancy rates (297 vacancies) reflecting the wider perceptions that the area was a ghetto.

Nature of the Project

A target of reducing the public rental presence from 24% to 12% was adopted (now 16%) to be achieved through refurbishment and sales. A nearby tract of land has been linked to the project and it is intended that up to 3,500 lots will be created. Sales are facilitated through Homeswest's Good Start scheme, which is a shared equity arrangement for low-income households. In addition there is a Right to Buy scheme whereby tenants are eligible for up to $20,000 equity and up to $5,000 rebate for self-improvements.

Walk-up flats are refurbished and sold for attractive prices with the criterion being that the deals are cash flow positive. The strategy is to reposition the suburb and to increase values.

Tenant relocation is done on a voluntary basis but with strong encouragement by providing attractive alternatives. A private firm on behalf of Homeswest manages the project. An office is maintained on site as a focus for the community consultation program.

The budget for the overall project is $190mil. Neighbourhood amenity and infrastructure improvements are being undertaken in accordance with a memorandum of understanding with the local council. The project is working closely with the police, agencies and schools. An Aboriginal community group has been employed to undertake refurbishment of houses and associated landscaping.

Approach to Evaluation

An evaluation was carried out by a consultant, reporting in December 1998.

The objectives of the project are to de-stigmatise the area, achieve a balanced social mix, provide affordable housing, enhance quality of life and increase property values. In regard to the latter it is reported that house values have increased from $45,000 to around $80,000.

Crime rates have continued to increase but at a lower rate than the metropolitan area as a whole. Outside perceptions of the desirability of the area as a place to live have improved. However there has been no comprehensive study of relocated tenants. Financial evaluations have been undertaken and it is reported that targets have been met.
Lockridge, Western Australia.

Background

Lockridge, a northern suburb of Perth, parallels the situation in Kwinana. Homeswest owned approximately 52% of the suburb at the commencement of the project in May 1995. A significant proportion of the dwellings were occupied by Aboriginal households. A target of 12% public rental was adopted.

Triggers for Renewal

The triggers for renewal, similar to Kwinana, were extremely high maintenance costs resulting from the obsolescence of the housing and the perceptions that the area was a ghetto.

Nature of the Project

A private firm has been contracted to project manage the project which involves the demolition of a large proportion of the flats and refurbishment of houses for sale to tenants and the private market. An extensive relocation program has been necessary into spot purchased houses, new houses and vacant Homeswest houses.
Approach to Evaluation

Evaluation has paralleled that of Kwinana but crime rates have fallen dramatically.

Inala, Brisbane Queensland

Inala is approximately 15 kilometres south west of the Brisbane CBD and lies within the Brisbane-Ipswich urban corridor. It is close to the Ipswich Motorway, large industrial estates and employment areas. The large new suburbs of Forest Lake and Springfield are being developed to the south west and upgrading of arterial roads is increasing Inala’s accessibility and exposure to new housing market activity.

Inala was purchased by the then Queensland Housing Commission in 1949 with the intention of developing a comprehensively planned community of over 4,000 dwellings for approximately 20,000 residents. The Commission was building for a rapidly expanding post war population and catered largely for young and growing families. The suburb was constructed quickly and was considered a model development at the time. Its major features remain some of the suburbs key assets and include:

- attractive and extensive park system with a variety of recreational spaces, including playgrounds, bike paths and sports fields and more natural and well treed areas;
a highly connected system of grid street patterns which facilitate and provide flexibility for new forms of development;
- a good range of educational facilities including pre-schools, primary schools, high schools and a TAFE campus;
- the Inala Civic Centre and a number of smaller neighbourhood centres and corner shops;
- number of local, state and commonwealth government agency offices in or around the Inala Civic Centre;
- a gently undulating topography which provides an interesting and attractive urban environment.

However, while Inala has matured into an attractive urban environment it suffers from a poor image associated with its disproportionately high quantum of public housing and low levels of private investment and local employment.

The urban renewal program in Inala commenced in 1997. At the commencement of urban renewal and redevelopment, the Department of Housing owned 2,500 units of accommodation, about 50% of the 5,000 dwellings in the suburb. Approximately 92% of these dwellings were 3 bedroom accommodation.

One focus on the redevelopment of Inala has been the provision of new accommodation which addresses the changing demographics within the suburb.

Since the commencement of the project 28 seniors units, eighteen 2 bedroom houses, seven 4 bedroom houses and two 5 bedroom houses gave been constructed. A further 12x2 bedroom are scheduled to commence in early 2000/01.

Major dwelling upgrades have improved security and increased privacy with significant improvements to fencing. Approximately 116 upgrades have been completed with a further 60 – 70 scheduled in the coming year.

The Inala redevelopment has also involved private sector projects to upgrade and diversify the suburb. Private firms are undertaking refurbishment and new construction of 200 dwellings for private sale (with 95% of all sales to owner occupiers). 34 new pensioner units are also under construction in a separate private development. Both reflect growing market confidence in the area.

In addition there is also the upgrade to the northern end of the Inala Shopping centre underway at a cost of approx $10M (check), although this is not housing it is reflective of market confidence in Inala.

From January 1998-January 2000, specific funding was made available to provide employment opportunities in streetscaping projects for previously long-term unemployed Inala residents. Challenge Employment & Training (C.E.T.) is responsible for the employment and
management of staff and coordination of training through TAFE.
Participants of the Scheme work through a series of skills to obtain a
Certificate in Landscape Management through TAFE.

Employment opportunities will continue in the Inala projects with
ongoing involvement of C.E.T. in landscape maintenance contracts and
redevelopment works.

Since late 1998 Inala has been targeted for activities under the
Community Renewal Program which has involved the development of a
Community Action Plan and the establishment of government co-
ordination mechanisms and a community reference group. Major issues
which have been identified in community action planning are the need
for better co-ordination of local support services, improvements to traffic
management and transport to improve mobility in the suburb, improved
access to training and employment opportunities and improvements to
the commercial centre of Inala as a focal point for the community.

An initial project was the upgrade of a local shopping strip by the
Brisbane City Council jointly funded by the Community Renewal
Program.

**Riverview, Brisbane, Queensland**

Early community planning occurred in Riverview under the Building
Better Cities Program in the mid 1990s. Key issues of concern from the
outset were the concentration of public housing, poor external
connections and inadequate infrastructure in the area.

Urban renewal activities commenced in Riverview in 1995 in response to
low demand and a high incidence of vacant properties in the area at the
time. Around half the suburb comprises public housing and the asset
related works have involved upgrading of dwellings, construction of
different types of accommodation and streetscape works. Some dwellings
have been converted to other community uses.

To date 310 dwellings have been upgraded, 17 dwellings sold and 20 new
dwelling (2 bedroom and seniors) have been constructed. Streetscaping
and park improvements have been completed to improve neighbourhood
amenity, a “Police Beat” has been established (shopfront police presence),
traffic calming works undertaken and a neighbourhood centre has been
constructed. Further upgrading of dwellings is scheduled.

A new community action plan was developed in 1999 under the
Community Renewal Program which has identified issue ranging from
employment issues to safety and crime to pedestrian access. One of the
initiatives which has developed through the community renewal
program is a major local employment and training project.
One of the initiatives which has developed through the community renewal program at Riverview is the Westfalen Jobs Creation Centre. Westfalen is a disused mine site located in close proximity to Riverview and other areas of disadvantage. The project involves the establishment of a nursery for propagation of native plants for regeneration projects, skills development in horticulture and conservation, and forest rejuvenation projects. The project is jointly funded from Community renewal program funding and jobs program funding.

The urban renewal projects at Riverview and Inala have featured the employment of local people on urban renewal projects for several years, including house demolition, fence building and landscape maintenance. The labour is engaged by Qbuild who contracts to the department. The involvement of local labour in urban renewal and community renewal projects has occurred through the involvement of the YUPI challenge organisation (now known as “Challenge employment and Training”), a longstanding community based employment and training agency.

YUPI Challenge instils a work ethic in participants to transform them from being unemployable to being employable. The strength of the agency is its diversity of funding sources, due in large part to its size. This enables it to take a longer-term view and to make investments in the future. Equally important is the commitment of the community leaders who are involved and the staff who take every opportunity to exploit local networks to gain employment for participants. Innovative approaches such as inviting local tradesmen to a BBQ run by potential apprentices have proven to be highly successful.

**Manoora, Cairns, Queensland**

Manoora is suburb of Cairns featuring a high concentration of public housing constructed between 1975 and 1990. It has been a low demand estate with concerns about crime rates, security and stigma associated with the area. There were particular concerns about youth crime in the area. There were also problems with the suitability of the housing design for the tropical climate and poor street design, leading to security problems.

**Nature of the Project**

Manoora was identified as a Community Renewal target area in 1998 not long after the Department of Housing had commenced planning for an urban renewal program. A community action plan was developed at the outset of both processes, ensuring early attention to improvements to the physical environment was followed by initiatives to address other community issues. The community renewal projects in the area include a pilot project to integrate services for infants and young children and their carers and a local employment program which links funding from both community renewal and the Queensland Government’s Community Jobs Plan.
The Queensland Government has adopted a “place management” approach to managing renewal activities in Manoora.

Since urban renewal commenced in Manoora in 1998, 131 houses have been upgraded and a new road has been constructed to improve access and security in the area. Further upgrading is planned in the remainder of the estate.

**Waterloo Estate, Sydney, New South Wales**

**Background**

The Waterloo estate comprises about 2,600 dwellings. It is located in South Sydney, about 2–3 km south of the edge of the CBD and just to the north of the Central Industrial Area. The area is now sandwiched between areas of rapid improvement and change, including accelerated gentrification of parts of Redfern and Alexandria and major new residential developments to the east and south, associated in part with the revitalisation of Green Square and of former industrial land fronting Moore Park.

The estate comprises four types of dwellings:
- four 17 level towers comprising in total about 850 mainly 2-bedroom units
- two 30 level high rise comprising (originally) 460 bed-sitters (with common rooms), designed for aged persons
- mostly 3 storey walk-ups (dating from an earlier period) providing 540 small 2-bedroom units
- about 300, mainly original C19th and early C20th terraces
- about 400 other dwellings of mixed types.

The open layout of the area meant that there were large areas of open space between buildings, which were regarded as a security risk. Nonetheless this has maintained an open feel despite the presence of high rise towers and has generally prevented overlooking and overshadowing.

The estate is home to households with a range of social and economic disadvantages. It has recently been identified (in a study by Professor Tony Vinson of the University of New South Wales) as the area with the greatest concentration of disadvantage within the Sydney metropolitan region. There is no shortage of employment within easy reach of the area, although the number of jobs available in the industrial parts of South Sydney has declined in recent years. The number of blue collar and white collar jobs in the areas to the south of the estate are expected to increase significantly in future as a result of current initiatives for the revitalisation of the South Sydney.
The area is well served by public transport within relatively easy reach of the estate. Other infrastructure is in good condition. There is a significant concentration of elderly people in the area, many of them increasingly frail. Over the years the notion of providing low-cost accommodation for low income working families and couples has been replaced by the increasing need to house households in priority categories. Many of these households (including single persons) have serious problems. This has led to some tension or conflict on the estate.

The Waterloo estate was included in a pilot program of estate improvement started by the NSW Department of Housing in 1994. This program evolved into the Neighbourhood Improvement Program (NIP) in 1995. The aim of NIP was to ensure:

- effective housing management services
- tenant and community involvement
- optimum use of assets
- community development outcomes
- increased employment opportunities
- focused and effective social service delivery.

The program has recently been recast as the Community Renewal Program but retains similar objectives.

**Triggers for Renewal**

The main triggers for the inclusion of the estate in the program were:

- recognition that the estate covered one of the most concentrated zones of disadvantage in inner Sydney
- concern about the future of the high rise blocks
- concern about future asset management strategies including the best use of accommodation to meet future needs
- need to reduce the very high rejection rates for some parts of the estate—e.g. some bed-sitters—which led to this accommodation being occupied exclusively by those with the most serious problems
- local and tenant concerns
- awareness that there was insufficient coordination between social and physical management programs.

The objectives of the program were as above to ensure:

- effective housing management services
- tenant and community involvement
- optimum use of assets
- community development outcomes
- increased employment opportunities
- focused and effective social service delivery.

The following were not objectives of the program:

- to change the tenure mix; the intention is that the estate should remain publicly owned rental housing;
- to dispose of stock.
It was accepted that the program would involve some reconfiguration of the accommodation and open space to achieve these objectives.

The main tenant concerns were:
- crime, safety, fear
- unsafe common areas
- behaviour of youth
- need for internal repairs and improvements.

Tenants were not concerned about:
- tenure mix
- public ownership.

**Nature of the Project**

The physical aspects of the project were:
- Conversion of tower block bed-sitters to one bedroom units
- Improvement of external design of walk-ups (addition of balconies etc.)
- Improvement of internal designs, fit-out, internal upgrades
- More responsive and effective repairs
- Security measures, security access, lighting etc., treatment of common areas
- Management of open spaces, provision of children's and youths' play areas etc.

The social aspects of the project were:
- Consultation
- Management of tenancies to separate vulnerable elderly from younger problem households (and singles)
- Measures to increase presence of activities/people to prevent abuse of under-used spaces
- Better measures for the elderly in the dedicated bed-sitter accommodation—social services, caretakers, alarm systems etc.
- Provision of some on-site employment opportunities
- Creation of community gardens.

**Approach to evaluation**

The program has been subjected to evaluation at a number of stages and from a number of perspectives, but there is no attempt to produce a single, overarching evaluation instrument. Post occupancy surveys have been undertaken by the on-site program management and these reveal a high level of satisfaction with the outcomes of the program to date.

Rejection rates are used as an index of the success of conversion and social initiatives. Some years ago a study of community cohesion was undertaken by Professor Tony Vinson of the University of New South Wales. This has recently been repeated and it is hoped that the results—
not yet available—will reveal whether or not there has been any improvement in this measure as a result of the program.

Lessons learned from the project include:

- Tenant participation and consultation is the key to a successful program. This has involved the setting up of precinct groups and estate-wide structures and has provided a means for two-way communication and involvement in every stage of the design and implementation of the program.
- Intensive management, covering social, physical and maintenance issues is essential.
- The use of an on-site outside group to act as intermediaries has been very successful. In this case it has taken the form of a unit established by UNSW—involving architecture, planning, social studies and other students—which has direct contact with the tenants. This has proved particularly successful in the preparation of plans for the reconfiguration of open space etc—e.g. in Camellia Grove.
- External improvements to buildings—as well as open space improvements—are welcomed as much by those not in improved buildings as by those directly affected, who appreciate the sense that the whole area is improving, becoming more normal, liveable and desirable.

Bellambie, Woolongong, New South Wales

Background

The Bellambi estate is located on the coast, about 10 km north of Wollongong, on a headland with a north facing beach. In this sense it is anomalous by comparison with other public housing estates in NSW. The area comprises about 700 dwellings of which up to 400 are detached cottages and somewhat over 300 townhouses. The area was developed in the 1960s and 1970s. It is mostly developed on Radburn principles. This involved many houses backing onto the street with front access from paths or lanes. The whole area was interlaced by a system of laneways.

The area until recently was heavily stigmatised in the Wollongong context. Although abutting areas are regarded as moderately attractive. As the need to house priority cases has increased, the area has experienced an increasing concentration of disadvantaged households.

The area is reasonably well served by transport being close to the Bellambi station which provides access to Wollongong, Port Kembla and Sydney.

Triggers for Renewal

The main triggers for intervention were:

- concern about the concentration of social problems and social stigma attached to the area
concern about the poor physical layout of the area, especially the Radburn layout.

Nature of the Project

The main physical objectives have been to:
- provide improvements to give the estate another 10-20 years’ life
- remove the worst features of the Radburn layout
- improve security
- close laneways and where necessary reverse the housing layout to achieve frontage to the street
- provide parking/garaging
- reduce the concentration of townhouses.

The main social objectives have been to:
- improve tenant consultation, two-way communication
- involve more social stakeholders, including police etc
- improve security and accessibility
- improve transport, lighting
- encourage communal oversight of area to improve security.

A longer term objective was to preserve the integrity of the super lot at least in the town house areas in the expectation that there may be an eventual need for sale. It is believed that the only realistic future for the area once the effects of the present 10-20 year program have worn out would probably be to sell the area for subdivision and redevelopment. This approach retains maximum value for the future. (Some cottage areas have been strata titled and a few cottages sold in previous years.)

Physical improvement measures have included:
- closing laneways
- reversing blocks/dwellings to front streets
- demolishing some townhouses to provide space for garages, improvements and to enhance the value of the remainder
- improvements to open space and security
- faster and better handling of short term repairs, improvements.

Social improvement measures have included:
- greater consultation
- establishment of joint groups with outside stakeholders, police etc
- more intensive management.

Approach to Evaluation

The Scobie precinct of Bellambi—an area of townhouses, currently undergoing renewal—was subjected to the Department of Housing’s Housing Options Appraisal procedure. This showed that if the maximum amount of development consistent with the physical and social objectives was undertaken this program was financially viable and preferable.
Tenant feedback has provided evidence of success and satisfaction. Rejection rates in the previously least desirable areas have been dramatically reduced.

The lessons learned are:

- There is no substitute for intensive management: on site, responsive, able to handle social and maintenance issues.
- Tenant consultation and communication is essential: the Department has learned that it is very important to keep communicating even if there is nothing new to say. Communication has to be a two-way process.
- Trial and error and close supervision is required to achieve the most cost effective ways of achieving the physical reconfiguration of the estate. Initial designs tend to lead to unacceptable cost over-runs. Trial and error indicates just which elements are really significant and which are the “icing on the cake”.
- The use of outside consultants and designers is not in the longer term effective. They do not take responsibility for implementation. They rely too much on the information they are provided with by the Department and add too little value. There is poor information transfer at the end of the process, consultants walking away from the project once they have delivered a formal product. There is a much more important need to build up and retain expertise for the longer term inside the local and regional Department offices.
- Rejection rates provide the one immediate index of the success of estate improvements.

**Maquarie Fields, Sydney, New South Wales**

**Background**

The Macquarie Fields estate is located about 30 km from Sydney’s CBD, approximately half way between Liverpool and Campbelltown. The estate was developed in the 1970s and comprises about 1500 dwellings, both 3/4-bedroom cottages and townhouses.

The estate, which covers some 150 ha, was laid out on Radburn principles. There is general separation of pedestrian and vehicle access. The whole area is covered by a network of walkways (laneways). Houses present front access to pedestrian paths and rear access to streets. There are large common areas and large amounts of open space. Before the commencement of the renewal program, the estate was predominantly arranged into super-lots.

In the course of the last decade the estate became seriously stigmatised as an area of neglect, dependency and crime. Children and youth under 16 comprise 50% of the population. 40% of households are headed by single parents. One quarter of all households have an income of less than $16,000 pa. The unemployment rate is over 30%. Less than 2% of the population is aged 65 and over.
The high concentration of social and economic disadvantage has spawned a range of social problems in the area including criminal and anti-social behaviour. Problems relating to youth, including poor health, low educational achievement, truancy, criminal behaviour etc, are particularly prevalent. There is clear evidence of transmitted deprivation and dependency as well as inter-generational succession of unemployment.

Triggers for Renewal

The program was commenced in 1995 under the NIP. To date about 1,300 dwellings within the Region, and the areas relating to them, have been improved. As in the case of Bellambi, the main triggers for intervention were:

- concern about the concentration of social problems and social stigma attached to the area;
- concern about the poor physical layout of the area and its relationship to criminal and anti-social behaviour; and
- the need to encourage community action and organisations to tackle the problems.

However, the problems are on a much larger scale than in Bellambi, since the overall population of the estate exceeds 5,000 persons.

Nature of the Project

The main asset management objectives have been:

- as in the case of Bellambi, to remove the worst features of the Radburn layout;
- to allow for individual titling of all blocks;
- to improve security and limit the opportunities for criminal and anti-social behaviour;
- to close laneways and reverse the housing layout to achieve frontage to the street;
- to improve the internal standard of accommodation, provide parking/garaging, enhance private space etc;
- to reduce the concentration of townhouses.

The main social objectives have been to:

- work jointly with other agencies and programs—such as health and education, police, economic development, etc—to mitigate the effects of the concentration of disadvantage;
- improve tenant consultation and the level of empowerment of tenants, two-way communication;
- raise the perceived (and actual) standard of the area in ways that are recognised and accepted by the residents;
- improve security, crime prevention, transport and accessibility, etc;
- encourage communal oversight and ownership of the area to improve security.
Key objectives include:
- breaking up the super-lots and achieving individual titling to enable a greater sense of ownership and social capital;
- stabilizing the population
- diluting the present socio-demographic composition of the area to achieve a more balanced population structure and reduce the concentration of disadvantage.

The objective of eliminating the worst features of the Radburn layout and achieving individual titling has entailed extensive works. These include:
- closure or reconfiguration of pedestrian walkways (laneways);
- reversal of dwellings to achieve street frontage;
- major program of constructing roads to allow appropriate access;
- demolition of townhouses to improve overall layout and facilitate construction of new roads, services etc;
- relocation of main services from under pedestrian walkways (laneways) and elsewhere.

At the same time there has been a major program to dedicate to the local government all the estate's roadways, which hitherto belonged to and were the direct responsibility of the Department of Housing.

In some areas up to 25% of the townhouses have been demolished to facilitate a new or improved road network and the relocation of services, to permit effective individual titling and to improve the overall design of the estate.

Works have also been undertaken to improve the internal fitting of dwellings. This is usually undertaken in connection with the reversal of frontages or when dwellings are likely to be sold.

Throughout the program the need to get rid of the super-lot and achieve individual titling of dwellings (with the possible option of selling dwellings individually or in precincts at some point in the future) has been a main driving force.

The main emphasis of the social program has been on consultation and on working with other programs to coordinate housing, health, education, economic development and other socio-economic initiatives. This has involved:
- consultation with tenants about design proposals; each household is consulted at least four times in the course of the preparation and implementation of the program;
- establishment of street, precinct and area groups for consultation and feedback;
- implementation of cross-departmental programs, such as joint education and health initiatives designed to tackle issues;
- employment and training measures (in association with other programs, such as those managed by Mission Australia) including the training and employment of the long-term unemployed for landscape and other work on the estate.
more intensive management. The socio-economic objectives are also being met by measures designed to improve the design and image of the estate and the sale of properties with a view to changing the demographic composition of the area. In the process there has been a financial bonus to the extent that the vacancy rate has been reduced, fewer households are in rent arrears and the rate of rejection of dwellings by incoming tenants has been reduced.

The longer term social objective remains to dilute the concentration of social disadvantage in the area—even if this means distributing disadvantaged households more widely—and obtaining a more normalised socio-economic structure.

Evaluation

Tenant feedback has provided evidence of success and satisfaction. Post-NIP satisfaction surveys have been undertaken on every property throughout the works and the results have been combined with the output of the group and precinct consultation mechanisms.

The program is regularly monitored for a set of basic housing program indicators, in common with all NIP renewal programs. These indicators include such things as vacancy rates, rejections rates, rent arrears. Rejection and vacancy rates have generally been reduced.

An economic Cost Benefit Analysis was undertaken by Judith Stubbs in 1996 of the neighbouring estate of Airds (near Campbelltown)—the improvement of which is being managed by the same part of the Department of Housing as the Macquarie Fields estate. This included assessments based on a number of social indicators, including such things as the amount of reported criminal activity, school truancy, notifications etc.) The survey and analysis is being repeated in 1999 but results from this are not yet available.

The analysis has not been applied directly to the Macquarie Fields estate. The Department of Housing’s Housing Options Appraisal system has been used to assess the merits of demolishing townhouses in areas where major reconfiguration of the urban design, new road construction and the relocation of services have been required. This has confirmed the value of the approach adopted.

Lessons learned are:

- The redesign of a complete and large estate is a very complex matter. It involves difficult problems of physical design, engineering and reconstruction. On the social side, it requires continuous consultation with those affected and careful management of contractors and others to ensure that the works can be completed with minimum disruption to the life of the estate. (Unlike some areas, the Macquarie Fields improvements and reversals have been carried out without decanting households, while the dwellings remained in occupation.) There are
no simple solutions to such a major program which is bound to throw up problems as it is implemented which must be managed as and when they arise.

- Partnership with the community and with other relevant agencies and programs is the key.
- Improved outcomes and overall urban design are possible although a great deal has to be done to achieve a satisfactory overall result. The indices of success are the reports of improved satisfaction from group consultation and individual tenant surveys, the evidence of a greater desire to stay in the area, fewer vacancies, lower rejection rates and an overall improvement in the finances of the area.
- There is inevitably a trade-off between works that have a specific focus on upgrading housing and major civil works necessary to achieve the break up of the estate and neighbourhood design improvements.
- Intensive management is an important part of the process. But intensive management cannot compensate for fundamental design problems that are essentially physical. For example, criminal or anti-social behaviour which stems from the arrangement of walkways, the layout of the dwellings and the large common areas will never be entirely removed by social programs or community and law enforcement action unless and until the deficiencies in the urban design are rectified.

**Olympic Village Melbourne, Victoria**

**Background**

In 1956 the Olympic Village was established at Heidelberg West located approximately 12km north-east of Melbourne. It was built to house athletes for the Games on a 50ha site. Around 840 dwellings were originally provided comprised of brick houses, concrete panel houses and walk-up flats. It was intended that the dwellings be used for public housing after the games.

The sales program in Victoria had diluted the Office of Housing’s holdings but in 1994 the Office still owned two thirds of the stock.

**Triggers for Renewal**

The profile of the stock was assessed as not meeting the needs of current residents with the demographics moving towards smaller households, older households and fewer people. The stock was deteriorating and much of the concrete panel stock had been demolished leaving vacant sites. A number of studies in 1994 identified the need for significant change.

**Nature of the Project**

The project commenced with only a general direction outlined and a stakeholder committee was formed with wide representation. It was
chaired by a local MP and it included Local Government and tenant groups. External consultant assistance was engaged.

The objectives were:
- to provide economically sustainable housing that better matches the profile of housing need;
- to provide a quality living environment;
- to gradually diversify tenure mix; and
- to maximise the use of available resources.

An important aspect of the project was that the outcomes were heavily influenced by tenancy management considerations, particularly the need to consult on relocations and to offer options to tenants (see text box below). After initial investigations a statutory Local Structure Plan was incorporated into the local planning scheme to document the agreed outcome. However it was necessary to incorporate some flexibility.

Ultimately the project involved:
- construction of 134 new public rental dwellings;
- upgrade of 244 existing units;
- sale of ten super lots for private development;
- Council area improvement works costing $4mil.

The cost to the Office of housing was $10mil. - $7mil. net of sales revenue. The project was implemented with a joint venture partner who was contracted to construct the public housing component, purchase the surplus lots and to construct the private housing.

**Consultation and Relocation**

In addition to the advisory committee a consultation program was put in place, which involved:
- Initial contact with all stakeholders by the project team, this includes all schools and pre-schools;
- In-home consultation with residents to be potentially relocated, particularly those in concrete houses;
- Community survey;
- Series of public meetings;
- Hot lines to the Office of Housing and the Council;
- Exhibitions.

The relocation policies adopted were:
- Relocation was voluntary (provided overall objectives not compromised);
- Residents could move back if relocation was essential and they wanted to stay;
- Relocation was to a suburb of choice (provided available).

**Importantly, the relocation consultations were done first and this determined the capital works program, that is, how many houses were to be constructed/redeveloped, etc.**
Approach to Evaluation

The project was not constrained by an absolute requirement to be cash neutral and the outcomes were to a large extent driven by social considerations determined via the relocation consultations. Thus the project was not clearly defined at its outset and cannot therefore be evaluated by reference to any pre-determined performance measures. The project has been reported to have been highly successful (high level of tenant satisfaction) and cost-effective, but this has not been fully documented.

Hotham Estate, Melbourne, Victoria.

Background

In 1991 the Office of Housing undertook feasibility studies with Better Cities Program funding for the redevelopment of seven estates with concrete walk-up flats including the Hotham Estate which is a 2.9ha site located in North Melbourne close to the CBD. The estate comprised 214 dwelling units in 14 low-rise, pre-cast concrete walk-up blocks. There were 12 blocks with four storeys providing 184 3BR units and there were 2 blocks with three storeys providing 30 elderly persons units.

All carparking on the estate was communal and the balance of the estate was grassed communal open space. There was a large proportion of persons born overseas, comprising major groups from Vietnam, South America and the Middle East.

Triggers for Renewal

The flats were assessed to be at the end of their useful life due to condensation, poor insulation and sealing problems stemming from their concrete construction and flat roofs. Maintenance costs were high. The planning of the estate and the design of the flats was associated with very low levels of tenant satisfaction.

Nature of the Project

The project was conceived from the outset as renewal of the physical infrastructure. There was no notion that tenure mix was a problem, but the fact that the estate stood out from surrounding (predominantly Victorian) housing was seen as creating a sense of stigma.

Thus a design goal was to re-create the traditional urban neighbourhood – the very fabric that was targeted by the slum clearance approach. The development provided 219 new units, about one-third for older persons and two-thirds for families. There is terrace housing, 3 to 4 storey family apartments and a medium rise older persons complex with lift access. Public roads and courts are provided and communal open space for an
adjacent high rise was privatised for that block. Nine separate architects were used to ensure design diversity.

A tenant relocation policy was adopted based on consultation and communication in relevant languages. The program was staged to minimise disruption and it covered reimbursable costs, information for tenants and options to return.

### Approach to Evaluation

The project actually increased the number of public rental dwellings and provided qualitatively superior accommodation. Tenant dislocation was restricted to the minimum necessary to facilitate the project. The cost-effectiveness issue was dealt with in the early feasibility studies. Tenant satisfaction post-occupancy is reported to be very high.

**Kensington Estate, Melbourne, Victoria.**

### Background

The Victorian Government adopted a Housing Policy in 1996, which included a commitment to carry through an earlier electoral promise to demolish a high-rise tower and to develop a strategy for the improvement of Melbourne’s high-rise housing estates.

There are 22 individual estates with 45 high-rise towers. Thirteen of these are older persons’ blocks, the balance being family blocks with 1, 2 and 3 BR’s. The blocks were built from 1960 to 1975 as part of a slum clearance program and all are structurally sound and could be used well into the next century. The blocks range from 12 to 20 storeys with one, Park Towers in South Melbourne, being 30 storeys. The estates accommodate around 18,300 people. Families with children account for about 30% of households and more than half of these are single parent households.
Nature of the Project

The Kensington estate has two family towers and one older persons tower and a concentration of concrete walk-up flats. Altogether the estate provides one of the most concentrated public housing estates in Melbourne. The project involves demolition of one of the family towers, refurbishment of the remaining two, demolition of the walk-ups, construction of town house development and purchase of some replacement dwellings in the area. Public rental dwelling numbers were to be maintained.

Approach to Evaluation

The initial phase of evaluation was aimed at identifying a high-rise tower for demolition. A comprehensive study was done of all estates looking at demand and supply factors. It was concluded that families benefit least from high-rise forms of housing but it was suitable for the young and old and single person households. New migrants and disabled people benefit from the accessibility of the inner city locations.

The method of evaluation was to assess each building in terms of three factors;

- Social impacts;
- The cost of holding the property (expressed in net present value terms); and
- The value in an alternative use.

It was decided to examine only those options where a net social benefit was likely. Social impacts were assessed for existing tenants, other clients (eg. those on the waiting list) and the local community (eg. local shopkeepers, the taxpayers and the Government). Various issues were identified and weightings were given. The alternatives were then scored against the criteria.

The Minister for Housing acknowledged in an address to the Victorian Planning and Environmental Law Association in June 1998 that the evaluation method was less precise than cost benefit analysis but better than financial analysis alone. It appears that the method employed successfully answered the question of which tower should be demolished if one must be demolished and it assisted in strategy development to maximise social benefits and to proceed in a cost-effective way. But the question of whether the tower should be demolished remains unanswered, as this was outside the terms of reference of the evaluation.

Condamine Court, Canberra, Australian Capital Territory.

Background

This estate was developed in the post war period in 1960 on the main thoroughfare north of the city centre. It contained 215 bed-sits in six
blocks of three-storey walk-up flats. The average floor area was 28 sqm. Other features were shared parking, common laundries and central garbage collection. These were originally used for single public servant accommodation in the rapid growth phase of the new capital city.

The role of public housing in the territory has changed to welfare housing in concert with all other places and the form of accommodation has proven to be unsuitable. The mix of unemployed people, aged males and young males has been associated with a range of social problems.

The project was in receipt of $6.9mil of Better Cities funding.

Triggers for Renewal

The trigger for renewal was principally the unsuitability of the bed-sit accommodation for the needs of clients. Social conflicts created security problems, vandalism and high maintenance costs. The Better Cities funding enabled the project to proceed and innovative approaches were explored and adopted consistent with funding guidelines.

Nature of the Project

The project was divided into three phases the first one of which is public rental, the second will be a joint venture and the third will be sold off for private development. In the first phase the bed-sits were converted on a two-for-one basis. 70 units and parking for 89 cars have been provided incorporating refurbished and new units proving 19 aged persons units (with lift access), 45 single bedroom units and 6 two bedroom units.
The external appearance of the refurbished units has been changed and the project has integrated a number of innovations in the areas of:

- Information technology / communications infrastructure;
- Efficiencies in heating, lighting and other resources;
- Grey water recycling and water conservation;
- Design principles for solar orientation, including passive solar collectors;
- Waste disposal / recycling;
- Worm farming; and
- Shared heating systems.

Residents were closely consulted and many remained on-site during the project.

**Approach to Evaluation**

Evaluations were done on the financial aspects of the development. The target rate of return is 7% (market rent / capital value). Various studies have been done on aspects of the incorporated innovations. It is reported that no particular social issues have emerged, but there is a concern that as projects proceed which are reducing overall dwelling availability there will be difficulty relocating tenants.

**Chamwood, Canberra, Australian Capital Territory.**

**Background**

Chamwood is a suburb dating from the mid-seventies located on the outskirts of Belconnen, one of Canberra’s outer suburbs. The Housing Authority owns 26% of the stock in the area developed along Radburn lines. Carports are situated right on the street and the houses face the wrong way such that if a person wishes to enter a house from the street this must be done via the laundry.

The communal access at the front of the houses is referred to as a lane and is perceived as a security risk. Maintenance of the houses had fallen away due to low rents and the suburb is perceived to be an undesirable place to live. Property values are extremely depressed.

**Triggers for Renewal**

The main trigger for the renewal project was the difficulties being experienced allocating the stock. The area was seen as undesirable and became a receptacle for problem tenants – thus compounding the problems of the area. The design shortcomings were seen as requiring addressing and there was political pressure being brought to bear.
Nature of the Project

The intention is to invest in capital improvements and to change the tenure mix through sales so that the area is perceived differently in the market. Works have included:

- Turning carports around;
- Converting the back end of properties to the front;
- Refurbishing properties;
- Screening to create private areas;
- Traffic management measures; and
- Selective demolitions.

Approach to Evaluation

The objectives of the project relate mainly to improving the desirability of the properties and the test will be essentially their market value. There has been consultation with residents to minimise disruption but dislocation problems are not envisaged in this instance.

Rokeby, Hobart, Tasmania

Background

Rokeby is an outer suburb located approximately 10km south-east of Hobart. The public estate in question consists of 68 lots of which 57 are public rental, one is vacant following demolition of a house and one is vacant for open space. All houses are three bedrooms and were constructed around 1975 of Besser block construction.

The layout of the housing is the Radburn approach, which amongst tenants is the least desirable stock available. The area had a particularly drab appearance due to the materials used in the dwellings and there was perceived security problems with the Radburn layout.

Triggers for Renewal

An analysis was done of various performance indicators (1996) and it was found:

- Turnover rate was 51% pa;
- Occupancy rate 85%;
- High vacated maintenance expenditure and loss of rent;
- High damage costs, for example, insurance claims nine times the regional average; and
- Anecdotal evidence of high crime rates and anti-social behaviour.

It was estimated that the savings of bringing these indicators back to State averages could be in the order of $40,000 to $50,000 pa.
Nature of the Project

Consultancy studies recommended an approach whereby a community organisation was appointed as the project manager. The Department had a project manager as well and a partnership approach was developed involving agencies and other stakeholders. Specific elements of the project included:

- Working with the local schools to involve children in the project;
- Integration of Commonwealth funded employment schemes;
- Offering accredited courses for participants with work gangs changing over every twelve months;
- A memorandum of understanding with the police, with free houses given for police to live in the area.
- Extensive consultation and promotion of the project;
- Improvements to the dwellings including rendering of external walls and fencing of open spaces.

The budget for the project was $600,000 or $8,824 per dwelling, approximately 40% of which was invested in the social aspects of the project.

Approach to Evaluation

Neither tenant dislocation nor stock reductions were issues in this instance. A set of desired outcomes was agreed at project inception framed around:

- Promoting working arrangements between stakeholders;
- Creating employment opportunities;
- Facilitating resident support;
- Improved physical appearance;
- Improved satisfaction with the area; and
- Cost reductions.

The project has been evaluated by reference to the outcomes discussed above and on all counts it has been very successful. It is reported however that with completion of the project there is evidence of some slipping back without continuation of the social support programs.

Ravenswood (Walk Tall Project), Launceston, Tasmania.

Background

The Ravenswood area of greater Launceston is a classic broadacre housing estate with extensive lower socio-economic housing built from the 1970's onwards. The area has high unemployment, high level of poverty, low work skill levels, a high percentage of rental accommodation and low self-perception. The suburb is geographically isolated from the remainder of Launceston, despite being only four kilometres from the Central Business District. There is no formed
footpath into the city, and the public transport is, at best, irregular. It is
the only suburb of Launceston without a regular Metro Bus Service.

In late 1995 the Ravenswood High School Principal, Dennis Betts formed
a group made up of concerned residents and service providers in
Ravenswood, who became the Ravenswood Compact. The motivation for
this group was concern that potential employees from Ravenswood were
disadvantaged in their search for work by the negative image that the
suburb had due to its origins as a broadacre Housing Services estate
(Housing Services have 758 rental houses in the Ravenswood area). The
aim of the Compact was to empower the Ravenswood community to
develop a shared vision for the future which they would be prepared to
work towards.

Triggers for Renewal

Better Cities funding gave the project the opportunity to provide
resources in order to build on the excellent work the Compact had
commenced. Once funds were secured and the project commenced the
original aims and objectives were modified as follows:

Aims:

- Develop partnerships between the Commonwealth, State and Local
  Government, the community, business and voluntary groups, to improve
  Ravenswood as a place to live.
- Identify issues the community is concerned about.
- Find ways to create work opportunities in the area.
- Identify employment and business opportunities in the area.
- Identify ways of improving public housing in Ravenswood.

Objectives:

- Physical renewal and redesign of properties and the environment including
  landscaping, greening and streetscape programs, dwelling refurbishment’s,
  redevelopment, rationalisation and sale of asset holdings by Housing
  Services.
- Social factors including tenant participation, a mix of purchase and rental
  options, opportunity for improved self-reliance through housing cooperatives
  and marketing strategies to redefine image.
- Exploring economic opportunities including employment creation strategies
  with the objective of improving self-reliance at the neighbourhood level.

It was agreed that the image of the area could only be altered if the area
itself took positive steps to alter its current situation and mobilised
community enthusiasm for change. Once these two pre-conditions were
in the process of achievement the area could publicise its new directions,
present new confidence to the outside world and tackle some of the broad
planning issues and practical problems.
Nature of the Project

The Future Search methodology was decided upon as an ideal vehicle for community involvement and planning. Future search is a large group planning meeting for people seeking common ground for action in communities.

Participants engaged in a series of open dialogues on where Ravenswood had been as a suburb, where it was now and more importantly, what they wanted to work toward. The process included people who were up until that time, strangers to each other or people who had a previous history of conflict together. People came to an understanding of what they were saying to each other.

A direct result from the future search weekend was the Walk Tall Master Plan. This outlined all the directions and strategies for the community to continue working on issues raised at the search. The Master Plan is a comprehensive Plain English strategic plan. The issues brought forward include:

- Youth activity and empowerment.
- The need for a strong community voice.
- Addressing negatives stereotypes.
- Housing - both public and private.
- Lack of economic development plan.
- Decisions, planning and consultation were being handled outside Ravenswood - this needed addressing.
- Service delivery to Ravenswood.
- Isolation and perception.

The Master Plan sets out the strategic direction for the following sub committees:

- Self Determination
- Public Perception
- Communications
- Quality of Life & Environment
- Housing
- Services
- Sport & Recreation Activities
- Employment & Economic Development
- Education

Between 40 and 50 people are now involved on the sub committees. The Master Plan provides continuing direction and focus for each of these committees. Each sub-committee had its own projects to implement. The following high profile projects were recommended to show the community that Walk Tall was having immediate impact:

- Self employment projects for residents of Ravenswood.
- A Ravenswood Community History to be written.
- Activities for young people.
- A Benchmark survey of the perceptions of Ravenswood.
- A study of current sports groups and facilities.
- A Social Heart concept to be drawn up incorporating a community notice board.
- A Community Market and Garden to be constructed.
- Employment and Economic Development initiatives to be explored.

An incorporated body was established (as the Walk Tall Association Inc) and the original steering/management committee officially handed over the project to the Association on June 20 1997. Since that time funding for the following projects has been received:

- $35,000 from DEETYA to employ a professional to work with unemployment issues in Ravenswood for a 12 month period. The Ravenswood Community Health Centre has provided office space and telephone, fax etc.

- $5,000 from the Tasmania Community Development Grant to support the Community Garden Project.

- $10,000 from the Queen’s Trust to work with young people in Ravenswood. The aim being to enhance their self esteem and job search skills in a four day adventure based learning and training course in the Fingal Valley run by the Outdoor Learning Group. There will also be a follow up program in the foothills of Ben Lomond to carry on the work of developing self reliance and self confidence.

- $1,000 from W.I.S.E. - this is a program encouraging Women Into Self Employment. They needed to enhance ‘cottage type’ industry into a business environment to enable a future to be developed.

A Sport and Recreation grant submission has been developed and has been well supported by the Office of Sport and Recreation Consultants, Launceston City Council and South Launceston Rotary Club. The $5,000 would enable the other organisations involved to build a full court basketball facility. This would be of great value in the Ravenswood area.
Approach to Evaluation

No formal process has been put in place for evaluation of this project although all indications are that the employment and training objectives are being achieved and the relationship with the public housing estate is a highly beneficial one.
New South Wales Housing Options Appraisal System

While all States and Territories have their own evaluation techniques the New South Wales system has been selected for closer examination on the basis that it is perhaps the most comprehensive.

Background

The NSW Department of Housing Options Appraisal system has been developed by the Strategic Asset Management Division to assist in the process of determining appropriate approaches to the renewal of Public Housing Estates.

It is emphasised that this is not the only input to the decision-making process. Other significant factors, not least local and political ones, have to be taken into account before a final decision is made. However, it is intended to be a useful tool, which brings together important strands in the process into a single decision framework.

The essential elements of the system are:

- that it is designed to get away from an appraisal that reflects the priorities or values of a single individual or branch of the organisation and to base the evaluation of alternatives on consensus measures and priorities;
- that it recognises the importance of sound financial appraisal, including where possible wider economic impacts; but
- at the same time it accepts that the main goals of social housing policy cannot adequately be expressed in dollar terms and that as a consequence an alternative approach is required.

The system recognises explicitly that many of the most important objectives of public housing policy cannot be measured in terms of dollars and cents. It is accepted that any attempt to do so:

- involves estimating the value of items for which there is no real market;
- is likely to be misleading or at least fraught with uncertainty;
- is very sensitive to the method used, the measurement system and the valuation of the relevant items.

The Options Appraisal system is designed to offer an alternative approach that is rigorous but not subject to these limitations.
Methodology

Basis

The analysis is undertaken in two parts which are brought together to provide the overall assessment of the relative worth of different approaches or options to renewal. Following the identification of issues and goals, the two strands of the analysis cover:

- financial and economic appraisal; and
- assessment of policy goals.

The financial and economic assessment is designed to measure the efficiency of the proposals in terms of the use of resources. The assessment of policy goals is designed to measure the extent to which outcomes will meet the Department’s policy goals. The bringing together of the two strands ensures that the overall assessment measures goal achievement in the light of the efficiency with which it is achieved.

Identification of issues, goals and available alternatives

The identification of issues, goals and available alternatives is achieved through widespread consultation and the agreement of all the relevant arms of the organisation.

Financial appraisal

The financial component of the system is described as a Cost Benefit assessment. However, it is recognised that this is more strictly a financial appraisal of alternative strategies, which focuses on the main financial aggregates. Items entered into the analysis include such things as:

- Average value of dwelling as now
- Average value after improvements
- Market rents
- Acquisition costs
- Improvement costs
- Specific costs relating to such things as road works, titling, disposal etc.

Important elements in the analysis, such as market rents and values, are subjected to scrutiny to ensure that there is broad agreement about the values adopted. The NSW Treasury lays down discount rates: currently 7% real with sensitivity testing of 4% and 10% real. Sensitivity analysis is used to ensure that the impact of alternative assumptions is fully understood. The output of this stage of the analysis is a set of conventional economic evaluation measures.
The NSW Department of Housing currently looks mainly at:

- benefit : cost ratio; and
- net present value per $ invested (NPV/$).

It is recognised that these measures yield different results and are each applicable under different circumstances.

**Assessment of policy goals**

The assessment of policy goals is based on obtaining consensus about the priorities and likely impacts of the alternative approaches. This is usually achieved by holding workshops at which the main issues and the desired outcomes are discussed. These workshops typically involve people from Strategic Development, Client Services and Asset Management branches of the Department.

The aim of the exercise is threefold:

- to score the project area on a scale of 1 to 10 in relation to the identified goals or criteria;
- to agree relative weights for each heading so that they can be summed into as single index; and
- to estimate the likely score that would be achieved if each of the alternative approaches to renewal were followed.

Four main categories of goal have been identified, each with a number of sub-goals or criteria.

One of these goals is to maximise housing choice for current and prospective tenants. This is regarded as an overarching goal which is not scored in relation to each alternative. Typical goals and sub-goals would be:

- to improve physical amenity for residents
- visual and acoustic privacy
- dwelling security
- design and comfort
- access and address
- maintenance condition
- to improve social amenity for residents
- absence of stigma
- community cohesion
- personal safety and security
- community services access
- to improve the efficiency of portfolio management
- tenant satisfaction
- match with demand
- affordability
The individual scores are weighted and summed to obtain a Goals Achievement Index (GAI) for each alternative. An example of the application of the GAI approach is shown in Table 1 in Appendix B.

This method of analysis has been adopted to ensure that all the relevant factors are considered and that the weights are those agreed to be applicable to the specific circumstances of, and goals for, each renewal scheme.

Output of analysis

The output of the analysis is in two parts. The overall strategic assessment “score” is determined by the following formula:

\[
\text{Overall Strategic Value} = \text{GAI} \times (\text{NPV}/\$) \text{ or } \text{GAI} \times \text{BCR}.
\]

This is supplemented by a SWOT summary, which details the Strengths and Weaknesses of each of the proposed alternatives. This ensures that the final decision-makers have a concise summary of the main expected outcomes (and drawbacks) of each scheme. An example of the overall assessment is shown in Table 2 (Appendix B). Further sensitivity testing is applied at this stage and an example of this sensitivity testing is shown in Table 3 (Appendix B).

It is emphasised that this final stage of the analysis does not provide a definitive answer. Further analysis is required covering such things as local and regional priorities, political factors, budget constraints etc. But the final score and the SWOT summary provide a consistent method of comparing alternatives that incorporates both the likely direct economic/financial outcomes (efficiency measures) and the social and policy outcomes.

However, the bringing together of the goals achievement score and the financial/economic efficiency measure is designed to highlight the overall efficiency with which different proposals will meet the Department’s policy goals.

Where there are strongly competing alternatives, further analysis of the results is needed in the light of other factors, such as the political and budgetary context. This is in order to determine, for example, whether a low cost scheme yielding low goals achievement should be regarded as preferable to, or more immediately feasible than, a high cost scheme that scores high on goals achievement.
ATTACHMENTS TO APPENDIX 3
Assessment of strategy goals achievement for options

This analysis assesses the degree to which strategy goals are achieved under each option. Scores are based on assessment of likely impacts from each option.

The spreadsheet format is designed so that stakeholders can adjust the weighting of goals (local attributes) and allocation of raw scores.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Status Quo</th>
<th>Modified Mgt</th>
<th>Rent Privately</th>
<th>Minor Upgrade</th>
<th>Major Upgrades</th>
<th>Sell &amp; Relocate</th>
<th>Demolish &amp; Redevelop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score (1-10)</td>
<td>Option 1</td>
<td>Option 2</td>
<td>Option 3/A/B</td>
<td>Option 4A</td>
<td>Option 4B/C</td>
<td>Option 4D</td>
</tr>
<tr>
<td>Physical amenity</td>
<td>33%</td>
<td>33.33</td>
<td>1 to 10</td>
<td>23.02</td>
<td>23.02</td>
<td>24.72</td>
<td>24.71</td>
</tr>
<tr>
<td>Visual &amp; acoustic privacy</td>
<td>17%</td>
<td>5.67</td>
<td>7.00</td>
<td>3.97</td>
<td>7.00</td>
<td>3.97</td>
<td>7.25</td>
</tr>
<tr>
<td>Dwelling security</td>
<td>17%</td>
<td>5.67</td>
<td>6.88</td>
<td>3.90</td>
<td>6.88</td>
<td>3.90</td>
<td>7.00</td>
</tr>
<tr>
<td>Design/comfort</td>
<td>17%</td>
<td>5.67</td>
<td>5.25</td>
<td>2.98</td>
<td>5.25</td>
<td>6.50</td>
<td>5.00</td>
</tr>
<tr>
<td>Address</td>
<td>17%</td>
<td>5.67</td>
<td>8.00</td>
<td>4.53</td>
<td>8.00</td>
<td>4.53</td>
<td>8.10</td>
</tr>
<tr>
<td>Access</td>
<td>17%</td>
<td>5.67</td>
<td>7.25</td>
<td>4.11</td>
<td>7.25</td>
<td>4.11</td>
<td>7.50</td>
</tr>
<tr>
<td>Maintenance condition</td>
<td>17%</td>
<td>5.67</td>
<td>6.25</td>
<td>3.54</td>
<td>6.25</td>
<td>6.50</td>
<td>5.00</td>
</tr>
<tr>
<td>Absence of stigma</td>
<td>25%</td>
<td>8.33</td>
<td>3.00</td>
<td>2.50</td>
<td>3.00</td>
<td>2.50</td>
<td>8.00</td>
</tr>
<tr>
<td>Community cohesion</td>
<td>25%</td>
<td>8.33</td>
<td>5.00</td>
<td>4.17</td>
<td>5.00</td>
<td>4.17</td>
<td>5.00</td>
</tr>
<tr>
<td>Personal safety &amp; security</td>
<td>25%</td>
<td>8.33</td>
<td>6.50</td>
<td>5.42</td>
<td>6.50</td>
<td>5.42</td>
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<tr>
<td>Community services access</td>
<td>25%</td>
<td>8.33</td>
<td>5.00</td>
<td>4.17</td>
<td>5.00</td>
<td>4.17</td>
<td>5.00</td>
</tr>
<tr>
<td>Portfolio management</td>
<td>33%</td>
<td>33.33</td>
<td>22.00</td>
<td>22.67</td>
<td>22.67</td>
<td>24.00</td>
<td>23.00</td>
</tr>
<tr>
<td>Tenant satisfaction</td>
<td>20%</td>
<td>6.67</td>
<td>4.00</td>
<td>2.67</td>
<td>5.00</td>
<td>3.33</td>
<td>7.50</td>
</tr>
<tr>
<td>Match with demand</td>
<td>20%</td>
<td>6.67</td>
<td>9.00</td>
<td>6.00</td>
<td>9.00</td>
<td>6.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Affordability</td>
<td>20%</td>
<td>6.67</td>
<td>9.00</td>
<td>6.00</td>
<td>9.00</td>
<td>6.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Flexibility</td>
<td>20%</td>
<td>6.67</td>
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<td>4.67</td>
<td>7.00</td>
<td>4.67</td>
<td>7.00</td>
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<tr>
<td>Management efficiency</td>
<td>20%</td>
<td>6.67</td>
<td>4.00</td>
<td>2.67</td>
<td>4.00</td>
<td>2.67</td>
<td>7.50</td>
</tr>
</tbody>
</table>

Total Value (1-100) 100% 61.27 61.94 69.97 64.82 67.21 71.04 73.85 70.67 72.55

Ranking
- 9th
- 8th
- 5th
- 7th
- 6th
- 3rd
- 1st
- 4th
- 2nd
### Comparative Assessment of Overall Strategic Value

Assessment period = 20 years; Subject 1025 dwellings

| Status Quo | 
| --- | --- |
| Non Asset | Rent Privately |
| Option 1 | Option 2 | Option 3a | Option 3b | Option 4a | Option 4b | Option 4c | Option 4d | Option 4e | Option 4f | Option 5a | Option 5b | Option 6 |
| No need | No need | No need | No need | No need | No need | No need | No need | No need | No need | No need | No need | No need |

<table>
<thead>
<tr>
<th>Replacement units</th>
</tr>
</thead>
<tbody>
<tr>
<td>No need</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Costs for Public Achievement (Total GA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>61.27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P.v. of Capital Cost (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>161.96</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P.v. of Benefits (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>104.83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N. P. V. (Invested)</th>
</tr>
</thead>
<tbody>
<tr>
<td>57.13</td>
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<table>
<thead>
<tr>
<th>Overall Strategic Value (GAT*NPV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd</td>
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</table>

### Discount Rate = 4%
Comparative assessment of overall strategic value

Sensitivity Testing

Assessment period = 20 years; Subject 197 dwellings

Based on Market Rental and PV of Cash-Flows

<table>
<thead>
<tr>
<th></th>
<th>Status Quo</th>
<th>Minor Upgrade- 50% sale of dwellings, lease replacement</th>
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<tbody>
<tr>
<td></td>
<td>Option 1</td>
<td>Base Case 98 dwellings</td>
</tr>
<tr>
<td>Replacement units</td>
<td>No need</td>
<td>60.19</td>
</tr>
<tr>
<td>Average value per dwelling after improvements</td>
<td>76,650</td>
<td>68,985</td>
</tr>
<tr>
<td>Private rental for leased dwellings/ unit/week</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Index for Goals achievement (Total GAI)</td>
<td>38.86</td>
<td>21.72</td>
</tr>
<tr>
<td>PV of Benefits ($M)</td>
<td>19.10</td>
<td>17.54</td>
</tr>
<tr>
<td>PV of Capital Cost ($M)</td>
<td>14.12</td>
<td>4.18</td>
</tr>
<tr>
<td>NPV</td>
<td>4.98</td>
<td>0.24</td>
</tr>
<tr>
<td>NPV / $ Invested</td>
<td>0.35</td>
<td>14.34</td>
</tr>
<tr>
<td>Overall Strategic Value (GAI*NPV/$)</td>
<td>13.71</td>
<td>1st</td>
</tr>
<tr>
<td>Ranking</td>
<td>1st</td>
<td>3rd</td>
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</table>
### Comparative assessment of overall strategic value

**Assessment period = 20 years**

**Based on Rebated Rental and PV of Cash-Flows**

<table>
<thead>
<tr>
<th>Discount Rate</th>
<th>Status Quo</th>
<th>Non-Asset</th>
<th>Rent Privately</th>
<th>Minor Changes</th>
<th>Major Changes</th>
<th>Sale &amp; Relocate</th>
<th>Demolition &amp; Redevelopment</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Option 1</td>
<td>Option 2</td>
<td>Option 3</td>
<td>Option 3a</td>
<td>Option 4a</td>
<td>Option 4b</td>
<td>Option 4c</td>
</tr>
<tr>
<td>Ranking</td>
<td>2nd</td>
<td>3rd</td>
<td>11th</td>
<td>1st</td>
<td>7th</td>
<td>10th</td>
<td>8th</td>
</tr>
<tr>
<td>4% Overall strategic value</td>
<td>33.39</td>
<td>32.53</td>
<td>25.82</td>
<td>33.80</td>
<td>28.72</td>
<td>24.23</td>
<td>25.85</td>
</tr>
<tr>
<td>Ranking</td>
<td>3rd</td>
<td>4th</td>
<td>9th</td>
<td>2nd</td>
<td>6th</td>
<td>10th</td>
<td>8th</td>
</tr>
<tr>
<td>Ranking</td>
<td>3rd</td>
<td>4th</td>
<td>12th</td>
<td>2nd</td>
<td>8th</td>
<td>10th</td>
<td>7th</td>
</tr>
</tbody>
</table>
MANUAL FOR
SECTORED COST BENEFIT
ANALYSIS

November, 2000
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Acknowledgements
Cover graphic – Parks Project - courtesy Urban Pacific / South Australian Housing Trust.

The consultants acknowledge the considerable assistance provided by representatives of all jurisdictions in compiling information for this report.
1. INTRODUCTION

1.1 Purpose of this Manual and Approach

This manual has been prepared to provide a tool for practitioners to evaluate public housing estate renewal projects. It is based on the theory of cost benefit analysis as espoused in the Handbook of Cost benefit Analysis (Commonwealth Department of Finance, 1997) with modifications to suit the particular circumstances found in public housing projects.

It is acknowledged that cost benefit analysis incorporates a number of economic concepts relating to valuing non-financial costs and benefits, and these can be difficult to master without some formal study in relevant areas. Equally, the technique is based on ‘discounted cash flow analysis’ and this also requires some expertise.

Having said this, the approach developed in this manual is designed to provide a practical tool which, can be applied when the appropriate expertise is available and when it is suitable to the task. This issue is taken up below.

The method proposed by the manual is termed Sectored Cost Benefit Analysis on the basis that transfers of ownership are included as they are of interest to the public rental sector. In pure cost benefit theory though, they do not result in net costs or benefits to the economy as a whole and would not be included.

The manual has been laid out around the steps suggested to be followed by the Department of Finance; namely:

- Determine the Scope and Objectives.
- Assess the Constraints.
- Consider the Options.
- Identify, Quantify and, where Possible, Value the Costs and Benefits of Each Option.
- Calculate Net Present Value.
- Weigh-up the Uncertainties of Each Option: Sensitivity Analysis.
- Report the Results and Prepare a Recommendation.

1.2 Background

There is a spatial coincidence between some public housing estates and various indicators of social dysfunction, such as unemployment and crime. Often, this coincides with dwellings in poor condition.
There is evidence that with an increasing need to accommodate more socially disadvantaged and problematical tenants, there is a tendency to concentrate them in the least desirable stock available. Thus tenancy management practices can have an influence on the creation of areas of social disadvantage.

There are strongly held views amongst practitioners working in estate renewal that dispersing socially disadvantaged households results in fewer social problems in aggregate. This is based on a view that spatial concentrations of social disadvantage become crucibles of crime and anti social behaviour and these values are passed on from one generation to the next. Little solid research to confirm or deny this proposition has been revealed however.

The major problem being faced in most estates is the simultaneous obsolescence of large numbers of dwellings. This is due to the fact that so many were built in such a short space of time in the early post-war period. In addition to obsolescence there is the mismatch to current needs. Many estates are located in areas where their original reason for being has disappeared (eg. closed resource and manufacturing industries) or they are designed for family accommodation where the demand is now towards smaller households.

In some jurisdictions the response is to harvest the value of the land by various means; invariably resulting in fewer dwellings but of a much higher standard with low maintenance costs and much better suited to tenant needs. On the whole, estate renewal is proceeding very efficiently from this point of view. In most cases careful attention is being paid to tenant welfare and considerable effort is expended to ensure that any potential dislocation effects are averted.

In the future though, there may be fewer opportunities to re-accommodate tenants. This is potentially an emerging problem that should be addressed now.

**The Stated Objectives of Renewal Projects**

All projects state their objectives in different ways but recurrent themes are - better quality housing, appropriate tenure mix and sustainable communities. Lower costs and adequate returns on assets are often mentioned.

Most projects have as their principal objective the upgrading of obsolete stock, with changing the tenure mix being important also. But some projects are exclusively about community renewal as opposed to asset renewal.

<table>
<thead>
<tr>
<th>Community Renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community renewal is a term used to describe projects that go beyond asset renewal to tackle social dysfunction in a population. Such projects aim to build the ‘social capital’ of an area and they can in some instances be entirely...</td>
</tr>
</tbody>
</table>
focused on this aspect and have little to do with the physical fabric of an estate.

The range of activities involved in the projects examined includes:

- Dwelling upgrades;
- Dwelling sales;
- Demolition and replacement or sale of land;
- Neighbourhood amenity upgrades;
- Infrastructure provision and enhancement;
- Joint ventures with the private sector;
- Outsourcing of project management;
- Incorporation of innovative design solutions;
- Partnerships with local government and/or other agencies;
- Integrated employment and crime prevention programs;
- Integration of various forms of community support;
- Research and feasibility studies;
- Consultation and tenant relocation programs.

There is no one model being applied as the circumstances vary between projects. However, a recurrent theme is the need for a more cross-sectoral approach to tackling the social problems of the people involved. There is a call for partnerships to be put in place to tackle these problems.

### 1.3 Overview of Cost Benefit Analysis

The theory of cost benefit analysis is dealt with by the Department of Finance (1997) and in numerous other texts (eg. Mishan, 1977; Musgrave, 1969, Sugden and Williams, 1985). Cost benefit analysis differs from financial analysis in that it is an analysis from the overall society's perspective. Costs and benefits are valued in terms of the claims they make or the gains they provide to societal welfare. The perspective is a global one, rather than that of any particular entity. Nevertheless, the discounted cash flow techniques of financial analysis are still employed.

The technique differs from cost-effective analysis in that costs and benefits are, as far as possible, expressed in money terms and hence are directly comparable with one another. There are a number of basic concepts:

- **Opportunity Cost** – costs and benefits are priced at their value in their best alternative use, which may be above or below the actual cost of production.
- **Willingness to Pay** – alternatively, costs and benefits are valued at what the marginal or last consumer in a competitive market is willing to pay for them.
- **The Cost Benefit Rule** – When the ratio of benefits over costs measured as described above is positive the project is worthwhile.
In many instances the signals that market prices provide are either absent or they fail to reflect the opportunity cost of the resources involved. There are techniques to shadow price by reference to the value of intermediate goods consumed or produced (eg. travel cost savings). Cost benefit analysis also accounts for externalities or unmarketed spillover effects (eg. pollution affecting third parties).

By definition, distributional effects are not accounted for, but identifying the winners and losers, most usefully in the form of a distributional incidence table, can rectify this. Where income changes arise, attention should be given to the value of marginal income changes to different income groups.

Cost benefit analysis is often criticised for its emphasis on financial criteria but it is difficult to envisage another unit of measurement that can be applied to a wide range of variables. It is recognised though, that many analyses will involve certain intangibles, and these will defy comparison in any technique that might be employed.

1.4 Applicability of The Technique

Cost benefit analysis is an effective evaluation tool, but as highlighted above, a shortcoming is the difficulty of valuing non-financial costs and benefits. It also has problems in application due to its economic concepts, which are not widely understood.

However, other evaluation techniques have similar shortcomings. In areas where research has been undertaken into the dollar values that might be given to non-financial costs and benefits there is a measure of comparability between evaluations, even if the actual values remain controversial.

The following qualifications on applicability are made:

- Some projects have their overall objectives set at the program level and there is little point re-assessing these in relation to each individual project. The most obvious example of this is where a decision has already been made to reduce public rental stock. In such cases cost effectiveness analysis (the least cost option for achieving a defined outcome) is potentially more appropriate.

- Cost benefit analysis is seldom appropriate when applied in retrospect. It is more important when a project is complete to evaluate whether the performance measures set for the project at inception have been met.

- Cost benefit analysis is most appropriately applied when the options being considered are profoundly different (eg. different number of public rental
When the ‘asset outcomes’ are substantially the same, cost-effectiveness analysis might be employed. When this is the case and the ‘social outcomes’ vary a planning balance sheet approach might be used as well.

To illustrate this last point the following questions represent examples of profoundly different options:

- Should the land be sold and the dwellings replaced on cheaper land elsewhere?
- Should the tenure mix upon completion be 100% or 75% or 25%?
- Should the number of dwellings retained be 3,000 or 2,000 or 1,000?
- Should the dwelling types be high-rise flats or walk-ups or medium density or detached houses?

Potentially included in this list would be questions relating to the amount of housing to be sold to sitting tenants. However, a decision on whether this is a profound difference will depend on the degree to which this will occur.

The social aspects and related indirect costs and benefits of the options illustrated above will produce noticeably different outcomes. In contrast, the following questions represent examples of options where the differences are subtler:

- Should there be a more or less extensive consultation program?
- Should there be a greater degree of community management of the estate?

Options such as this are a product of the policy settings adopted by the authority at the program level and reflect the prevailing philosophy on social housing provision. They do not normally arise because of the particular circumstances in any given estate, although it is acknowledged that on large estates new issues of this nature can arise.

Thus the selection of options and the adoption of an evaluation framework necessitates an integrated process on a case by case basis.

2 DETERMINE SCOPE AND OBJECTIVES.

<table>
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<th>Department of Finance Guideline</th>
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<tr>
<td>The first step is to outline the nature of the problem that the proposal is to address, its background, context and rationale. The information assembled and presented at this stage should also provide an initial indication of how appropriate the objectives of the initiative are in relation to current Government priorities and/or community needs. These objectives should be defined in terms of the outcomes expected from undertaking the proposal. They should be clearly distinguished from the means of</td>
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meeting them. Further, the objectives should not be so broad or general that it will be difficult to establish subsequently whether, or to what extent, they have been met.

Ideally, the objectives of any given project will be formulated within clear policy guidelines formulated at the program level. It is at this level that much of the research into some of the indirect and intangible costs and benefits is best carried out. For example, it is difficult to research the effect that reducing the supply of public rental will have on a project by project basis. These types of impacts are often determined by exogenous factors such as global budget constraints or on policies relating to other housing assistance options such as rent assistance, community housing or home ownership assistance schemes.

Objectives that might be adopted for a public housing estate renewal project could relate to:

- Improving the standard of housing in the estate.
- Improving the amenity of the estate.
- Improving the facilities and infrastructure of the estate.
- Reducing the stigma of the estate (or normalising the estate).
- Changing the tenure and social mix of the estate.
- Harvesting land value to provide new and/ or refurbished housing.
- Integrating with wider community renewal initiatives (eg. training, employment, social support, etc.).

Objectives can have performance measures related to them, which describe measurable outcomes and timelines. These can be based on benchmarks that represent examples of known best practice in the relevant area.

The objectives of public housing estate renewal projects vary widely across Australia, as reflected in the following approaches:

- A number of projects are triggered by large numbers of dwellings becoming obsolete (for example, Adelaide and Perth). Perceived social problems combined with changing needs and budget constraints give rise to a land harvesting approach. This approach is typified by a desire to reduce the public housing presence, add value to the land assets and to convert land value into new dwellings.
- A number of projects are triggered by obsolescence of stock but in areas of high need (for example, inner Melbourne and Sydney). In these instances stock replacement, or even additional stock, is sought.
- A number of projects involve stock that is in good condition but is surplus to needs (for example in parts of outer Brisbane where the supply is largely family homes but the demand is from small households). Divesting of stock becomes the aim.
- A number of projects involve stock in good condition but where there are social problems associated with crime and unemployment (for
example, in Tasmanian, ACT and Brisbane broadhectare estates) where there is an emphasis on community renewal as opposed to asset renewal.

There is a growing realisation that housing asset renewal provides an opportunity to instigate measures to tackle the problems of spatially concentrated social disadvantage through integrated approaches to training, employment creation and crime prevention. Community renewal initiatives, as they have become to be known, also provide a vehicle for more co-ordinated delivery of government and other social support services.

It is important that the objectives of any estate renewal project address all issues related to both asset and community renewal and that this is done in close consultation with the community affected and all stakeholders involved. The Australian case studies confirm that the most successful renewal projects are those that commence with and continue with extensive and meaningful consultation.

3 ASSESS THE CONSTRAINTS

Department of Finance Guideline

Constraints on meeting the objectives should be identified to ensure that all alternatives examined in the analysis are feasible. Constraints may include: financial, distributional, institutional, managerial, environmental and political.

Ideally, the major constraints on any estate renewal project will have been thought through at the program level and clear policy guidelines will be in place. However, not all constraints can be foreseen. Examples of constraints that can arise include the following:

- The commitment of local government to estate renewal projects varies across Australia. There are some excellent examples of local government taking a constructive and pro-active role in projects, but equally there are examples of ambivalence.
- Budgetary constraints are of course highly significant and can affect the effectiveness and the longevity of a project.
- Tenancy management constraints are a major concern in many instances. The extra load placed on tenant managers by the welfare focus of public housing, combined with the requirement to accommodate people whose real need is for supported accommodation, is not widely appreciated.
- Mechanisms for integrating the efforts of the various players involved in any given project are often problematical and militate against taking a comprehensive community renewal approach. There can also be a shortage of skills in agencies to implement such an approach.
There can be particular cultural factors associated with groups of people, such as indigenous Australians, that must be understood. This requires particular skills and commitment.

 áreas can be deficient in economic and/or social infrastructure.

 The private land market may be depressed in some areas with the effect that divesting stock becomes problematical.

This is not a complete list of the constraints that may arise, but it serves to illustrate the types of factors that need to be addressed.
4 CONSIDER THE OPTIONS

Department of Finance Guideline

The main options, or alternative ways of meeting the objectives, should be identified. In most cases, a ‘do nothing’ option should be included as a base case. Even if it is not initially included, this option will need to be made explicit in the subsequent analysis, since costs and benefits are always measured as incremental to what would have happened had the project not gone ahead.

While it is important to provide decision-makers with a range of options, the process of developing and analysing these can be expensive and time consuming. For major investments, it may be necessary to outline the various potential options and then to have decision-makers select a smaller number for detailed appraisal.

Cost benefit analysis is generally more effective when the options are profoundly different. Where this is not the case an alternative approach should be considered.

The do nothing option is normally not feasible due to the fact that the project has been triggered by the perceived need to do something. However it is include for the reasons outlined in the text box above.

For small projects the options might be quite clear and they lend themselves to framing up and evaluation. But medium to large projects often proceed tentatively on a try it and see basis. In many cases the first stage proceeds, is evaluated, and subsequent stages are refined.

When a tentative approach is being taken analysts may consider a two-tiered evaluation whereby the options for the whole project are evaluated in general terms and when a general direction has been adopted a more detailed evaluation is undertaken for the options for stage 1.

This underscores the fact that project evaluation cannot be driven by a formula driven approach. Analysts must be skilled in the techniques of evaluation but equally they must be skilled in adapting the techniques to the particular circumstances presented by a given project.

The process of option development is an important phase to incorporate into the consultation program.
5 IDENTIFY, QUANTIFY AND, WHERE POSSIBLE, VALUE THE COSTS AND BENEFITS.

Department of Finance Guideline

The costs and benefits of a proposal include:
- initial capital costs;
- capital costs of any buildings, equipment, or facilities that need to be replaced during the life of the project;
- operating and maintenance cost over the period;
- residual values of capital assets at the end of the project;
- benefits which can be valued in money terms, in the form of revenues, cost savings or non-marketed outputs; and
- measures or descriptions of those costs or benefits which cannot be valued in money terms (often described as ‘intangibles’).

The basis for valuing costs in economic evaluation is their ‘opportunity cost’. The opportunity cost of a resource is measured by the value in its ‘next best’ or most valuable alternative use. In many cases, market prices provide a valid measure of opportunity cost.

Valuation does not always involve actual cash expenditure. If an asset (for example, land or a building) is already owned and could, in the absence of the project, be disposed of at the prevailing market price, it should be valued in the financial evaluation at the market price. This also focuses attention on the implicit cost of retaining the asset.

Intangible costs and benefits are, by definition, those that cannot realistically be assessed in actual or approximate money terms (for example, health and education (benefits) and disease, illiteracy and environmental degradation (costs)). Such costs and benefits should be identified and quantified to extent possible (for example, the cost of avoiding downstream pollution is a partial measure of the cost of pollution). Projects where a substantial amount of the benefit is intangible may be better evaluated using cost-effectiveness analysis.

Costs and benefits occurring at different time periods need to be set on a comparable basis. Normally they should be expressed in ‘real terms’ at the price levels prevailing in the year the analysis is carried out since inflation simply raises the values of all costs and benefits of future years by a given percentage. However, where the price of a particular good or service is expected to increase or decrease significantly more or less than the general rate of inflation (for example, oil prices may be expected to move faster or slower than general inflation), these changes in relative prices also need to be accounted for in the analysis.
This is the core section of this manual and as such it deals with the subject matter in detail.

**Types of Costs and Benefits Normally Considered**

It is useful to distinguish in the first instance between the direct and indirect benefits of a project.

Direct costs and benefits relate to the specific objectives of the intervention. In public housing renewal projects these generally include:
- the opportunity cost of employing the land and improvements in question (that is, capital not realised by selling the assets on the open market);
- The benefit derived from the proceeds of sale of land and improvements not being employed in the project;
- the benefit derived from the proceeds of sale of all of the employed assets (land, houses and infrastructure) at some point in the future (normally on project wind-up);

Note that these three items are not included in a ‘theoretically pure’ cost benefit analysis but they have been included in the ‘sectored’ cost benefit analysis because they are of considerable interest to housing authorities.

- the capital costs of housing and infrastructure;
- the recurrent costs associated with housing and infrastructure;
- tenant relocation costs such as removal costs and compensation; and
- benefits for tenants of high standard dwellings, good neighbourhood amenity and reduced stigma.

Indirect costs and benefits relate to by-products of the intervention. In public housing renewal projects these generally include:
- changes in access to social support networks for relocated tenants (often thought to be of an adverse nature);
- changes in housing opportunities for prospective public rental tenants (often thought to be of an adverse nature for people on waiting lists if the project results in a net reduction of dwellings);
- benefits for other residents in the neighbourhood of higher standard public rental dwellings, better neighbourhood amenity and reduced stigma (note these are grouped together because they lend themselves to a single measure of their aggregate value – market rent increment); and
- benefits of society wide reduced social dysfunction as reflected in social indicators (for example, on crime rates, health, employment, etc.).

**Relevance to Cost Benefit Analysis**

It must be born in mind that cost benefit analysis values costs and benefits in terms of the claims they make or the gains they provide to the economy as a
Applying these principles to the above list of notional costs and benefits reveals the following:

- The opportunity cost of employing the assets owned at the commencement of the project is a cost to the public housing authority but not to society as a whole. A transfer of ownership has financial implications for the parties involved, but no resources are created or consumed in doing this.
- The proceeds of surplus asset sales, in a similar fashion to employed assets, are merely a transfer of ownership.
- The proceeds of sale of all assets on project wind-up are also a transfer of ownership.
- The capital expended on housing and infrastructure improvements does represent consumption of the society’s resources and should be included as a cost in a cost benefit analysis. Similarly, recurrent costs, and tenant relocation costs are included.
- Benefits to tenants remaining on the estate from better standard dwellings, improved neighbourhood amenity and reduced stigma are direct benefits that add to societal welfare and should be included. They are however non-financial benefits and the issue of determining their value arises.
- All of the indirect costs and benefits (tenants changed situation, impact on prospective tenants, better amenity and reduced stigma for neighbours and reduced social dysfunction) are additions and subtractions from societal welfare and should be counted.

Thus the only financial costs and benefits that comply with cost benefit analysis principles are net changes in capital and recurrent expenditure. The indirect costs and benefits listed above comply also.

The problem with this is that project evaluators in a real world situation are required to establish that assets are optimally employed in a financial sense and often this takes precedence over the indirect costs and benefits. This calls into question whether a theoretically pure cost benefit analysis is the right tool.

At the program level net changes in capital and recurrent expenditure and the indirect costs and benefits associated with these are quite clearly the most important factors and cost benefit analysis is certainly applicable. However, when resource allocation decisions are made at the project level the question becomes one of managing the assets effectively to achieve stated policy goals.

It follows that a combination of financial analysis and some of the techniques of cost benefit analysis can be employed but it should be made clear that the technique is not a pure cost benefit analysis in a theoretical sense.
The term Sectored Cost Benefit Analysis has been coined to describe the technique on the basis that it deals with costs and benefits from the perspective of the public rental sector. Thus transfers of assets in and out of the sector become important and can be included.
Valuing Costs and Benefits

In many instances the signals that market prices provide are either absent or they fail to reflect the opportunity cost of the resources involved. There are techniques to shadow price by reference to the value of intermediate goods consumed or produced. Cost benefit analysis also accounts for externalities or unmarketed spillover effects.

Following is a discussion of how real world costs and benefits in a Sectored Cost Benefit Analysis might be valued. A table summarising the main costs and benefits to be addressed appears in the next section.

The opportunity cost of employing the land and improvements in question.

This is an important cost to be accounted for on the basis that options that utilise more or less land, or high and low value land, can be compared. The value is simply what the land could be sold for and it can be assessed using normal valuation techniques.

The benefit of selling land and improvements not being employed in the project.

This is a simple one-off benefit valued on the basis of willingness to pay as established in the real estate market.

Sale of Assets on Wind-up

This is a real financial benefit that must be accounted for, but it is often the case that wind-up is very much in the long term, say fifty years plus. The present value of a financial benefit this far out is quite minimal and does not therefore influence the analysis to a great degree (for example, the present value of $1mil. in year 50 at a discount rate of 5% is only $87,000).

Capital Costs

The capital costs of housing and infrastructure are clearly up-front cost items to be included.

Tenant Compensation

The capital costs of compensating tenants are also up-front cost items that must be included.

Benefits to Tenants Remaining on the Estate
The benefits of high standard dwellings, good neighbourhood amenity and reduced stigma are quite real but these in themselves are intangible concepts. Nevertheless, it is often held that they have an imputed market value in that consumers are willing to pay market rent for these attributes.

Market Rent as a Measure of Value to Tenants

In economic theory it is postulated that market prices will in many cases under-value costs and benefits because there are some consumers who are willing to pay more. It is said that they benefit from the fact that the equilibrium price (where supply meets demand) is set in a competitive market by the whole body of consumers whose willingness to pay for a commodity varies. The willingness to pay not tapped by the market price is termed consumer surplus.

Measuring consumer surplus requires sophisticated econometric techniques that are normally beyond the scope of any individual evaluation project. It is arguable that in the absence of such research it is sufficient to simply recognise that market rent may under-value benefits and to include this in the sensitivity analysis.

In addition to the consumer surplus argument there are other reasons why market rent should be used with caution as a shadow price for benefits to tenants. It arguable that public rental is a superior good to private rental, particularly with respect to security of tenure. Indeed, the Industry Commission (1993) in its review of public housing supported this notion.

However, there are arguments running counter to this. In some instances public housing is difficult to let and private rental in the same area is in strong demand. Rent assistance policies may have some influence on this. Security of tenure is also being eroded somewhat by current allocation policies.

A further problem with market rent is the fact that market rents are set by the willingness to pay of people who have a different situation to the average public rental client. There are differences in incomes and locational preferences, for example.

A further reason why market rent may undervalue benefits to tenants is that there may be a change in their social circumstances with estate renewal. This might be reflected in changes in social indicators.

It is apparent that the relative value of public rental to private rental is heavily influenced by program delivery policies at the macro level and is not therefore usefully dealt with at the individual project level.
Tenant Relocation Costs/ Benefits

It is strongly advocated by practitioners in the field that these potential costs are minimised if not removed by tenancy management initiatives (reflected in tenant relocation costs). These include waiting for natural vacancies, relocating to the same area, making relocation voluntary, relocating to superior accommodation, providing compensation, and providing support and consultation. In some cases move back options are provided. In many cases it is clear that relocated tenants are better off.

Nevertheless there have been some examples of disaffected tenants and in some cases there has been discrimination against tenants in predominantly private housing areas.

An Example of an Approach to Valuing Tenant Relocation Costs/ Benefits

The South Australian Department of Human Services, for example, is exploring this issue and has developed ‘performance indicators’ which include indicators of ‘social exclusion’. The indicators do not in themselves correlate with costs or benefits, but they potentially provide a basis for ranking the before and after situation. The indicators cover (inter alia):

Physical Environment
- Proportion of public rental
- Proportion of ‘double units’ (known to be poor housing in SA)
- Proportion of old stock

Economic Environment
- Capital value movement
- Vacancies

Social Environment
- Unemployment rate
- Proportion low income
- Proportion transfer payments
- ABS index of social disadvantage
- Child protection notifications
- Domestic violence assessments
- Proportion of sole parent families
- Car ownership
- Age of population
- Housing turnover

Crime
- House theft
- Assaults
- Adult imprisonment
- Juvenile detention

Education
- School leaving
- Basic Skills Test

Health
- Truancy
Note that these indicators are summaries only of the South Australian set provided to illustrate the scope of such an approach. The indicators underlined are those with a potential to provide a basis for shadow pricing costs and benefits as the basis of the valuations would be costs generated or costs avoided through deterioration in the indicators. For example, there are potential costs in transfer payments, support services, crime prevention and detection, and health services. In addition there are costs to the economy from a poorly educated, unhealthy and poorly adjusted workforce.

A Note of Caution

It is apparent that dealing with these types of costs will be extremely difficult on a project by project basis and this research should be done at the program level with guidelines to be provided to program evaluators. Such guidelines might suggest a shadow price to be taken into account for tenants with certain characteristics if they are forcibly relocated. It must be borne in mind though that the other benefits of a project (eg. reduced stigma for tenants remaining) may still render it beneficial in net terms. The fact that there are some losers will need to be taken into account when assessing the distributional effects.

Reduced Housing Opportunities Costs

These costs potentially arise when a project results in a net loss of dwellings in the overall portfolio. While the new stock may be of equivalent value, more ‘normalised’ (reduced public rental presence), in better condition and more suited to tenant needs (see below) reduced numbers may impact on the waiting list (the exception being where the poor standard dwellings have a high vacancy rate).

Prospective tenants if they have to wait longer on the list may endure some costs. These could arise because of higher rents (not everywhere the case – and rent assistance must be taken into account) and potentially because of other housing problems relating to security of tenure, overcrowding, etc.
It is quite clear though that estate redevelopment is taking place within a policy context, the main planks of which are:

- Contracting the public rental sector in some areas.
- Reducing concentrations of public rental in some areas.
- Reorienting public housing from its traditional role as ‘workers housing’ to ‘welfare housing’.
- Normalising public rental in some areas.
- Harvesting land value to redevelop estates (to provide higher standard / better configured housing, albeit with fewer dwellings)

In this context it would be a futile exercise to expend resources in a project evaluation on attempting to value costs and benefits that are presented as a fait accompli in the policy framework, unless of course there are locationally specific variations in the pattern of costs and benefits.

This is another clear case for work to be done at the program level with shadow prices developed that can be applied in specific circumstances when locational variations occur. Even with shadow prices determined there would still be an intangible aspect to these costs that should be acknowledged.

**Spillover Benefits of Enhanced Neighbourhood Amenity**

Other residents in the area also derive the benefits of high standard dwellings, good neighbourhood amenity and reduced stigma. In this instance these spillover benefits can be shadow priced by reference to market rent increments (because, unlike the situation for the public rental tenants, the opportunity cost of capital employed has not been taken into account).

The full market rent is used to measure the benefit to tenants remaining on the estate because the full capital cost, including costs sunk in the land, have been included. Had only marginal costs been included (as they would in a theoretically pure cost benefit analysis) then only the marginal benefits would be counted – increments in market rent.

However, the benefits accruing to other residents in the area are spillover benefits involving no additional expenditure. The benefit is the market rent increment only as this reflects the changes that have occurred.

**Benefits of Society Wide Reduced Social Dysfunction**

These benefits are related to the tenant dislocation costs discussed above with the distinction being that they accrue to society as a whole. There is a clear case here also for shadow prices to be determined at the program level.
### Summary of Costs and Benefits Generally Associated with Public Housing Estate Renewal Projects

Shown in the Table below is a summary of the above costs and benefits, the basis of valuation and an indication of the parties affected in each instance.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DIRECT/ INDIRECT</th>
<th>BASIS OF VALUATION</th>
<th>INCIDENCE</th>
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<tbody>
<tr>
<td><strong>COSTS</strong></td>
<td></td>
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<tr>
<td>Opportunity Cost on Land and Improvements</td>
<td>Direct</td>
<td>Market (1)</td>
<td>Authority</td>
</tr>
<tr>
<td>Capital Costs – Housing and Infrastructure</td>
<td>Direct</td>
<td>Market</td>
<td>Authority</td>
</tr>
<tr>
<td>Recurrent Costs – Housing and Infrastructure</td>
<td>Direct</td>
<td>Market</td>
<td>Authority</td>
</tr>
</tbody>
</table>
| Tenant Relocation  
• Compensation Paid  
• Extra Tenant Costs | Direct | Market | Authority |
| Tenant Dislocation  
• Possible loss of support networks | Indirect | Shadow Price (2) | Relocated Tenants |
| Reduced Housing Opportunities | Indirect | Shadow Price (2) | Prospective Tenants |
| **BENEFITS** | | | |
| Sale of Surplus Assets Up-front | Direct | Market (1) | Authority |
| Sale of Residual Assets on Wind-up | Direct | Market (1) | Authority |
| Better Living Environment for Public Rental Dwellings.  
• Higher standard dwellings  
• Better neighbourhood amenity  
• Reduced Stigma | Direct | Shadow Price -eg. Market Rent | Tenants |
| Better Living Environment for Other Dwellings in the Neighbourhood.  
• Higher standard dwellings  
• Better neighbourhood amenity  
• Reduced Stigma | Indirect | Shadow Price -eg. Market Rent Increment | Other Residents in the Neighbourhood |
| Reduced Social Dysfunction Generally  
• Possible society wide benefits as reflected in social indicators. | Indirect | Shadow Price Eg. Cost Savings Achieved (2) | Society Generally |

**Summary of Costs and Benefits Associated with Public Rental Estate Renewal Projects**

**Note:**
(1) Not normally included in a ‘theoretically pure’ cost benefit analysis.
(2) Costs and benefits that would benefit from wider research into appropriate shadow prices.
A Project Typology and the Stepwise Approach to Cost Benefit Analysis.

The major differentiating features of urban renewal projects from a cost benefit point of view are the types of costs and benefits involved, specifically whether they are direct or indirect and whether their incidence is contained locally or it extends to society generally. Within this context two types of project can be identified.

**Type 1 - Projects with Predominantly Direct Costs and Benefits**

These projects tend to be of a smaller scale and limited in their time frame and they do not change the tenure mix markedly.

The cost categories are:
- Opportunity cost of land and improvements employed.
- Capital costs of development.
- Recurrent costs.
- Tenant relocation costs (to the extent relevant).

The benefit categories are:
- Sales of land and improvements.
- Sale of assets on wind-up.
- Benefits to tenants reflected in market rent.

**Type 2 - Projects with Potentially Significant Indirect Costs and Benefits**

These projects may be of a medium to larger scale and of a medium to longer time frame and they may change the tenure mix noticeably.

In addition to Type 1 above the costs may include:
- Potential tenant dislocation costs.
- Potential housing opportunity reduction costs – perhaps regionally specific.

In addition to Type 1 above the benefits may include:
- Spillover benefits to other housing in the area reflected in market rent increments.
- Potential for society-wide reduced social dysfunction benefits.

It has been suggested above that the measurement of certain potential indirect costs are best researched and calibrated at the program level. Taking this into account and given the types of projects outlined above it is appropriate to approach cost benefit analysis is a stepwise fashion as follows:
- Step 1 is an analysis that deals only with direct costs and benefits. In many cases this will suffice for the Type 1 projects described above.
Step 2 is an analysis that adds the indirect costs and benefits.
6 CALCULATE THE NET PRESENT VALUE

Department of Finance Guideline

When the cost stream has been subtracted from the benefit stream to give a net benefit stream, a benchmark ‘discount rate’ is applied to yield a Net Present Value (NPV) for the option. It is necessary to ‘discount’ costs and benefits occurring later relative to those occurring sooner. This is because money received now can be invested and converted into a larger future amount and because people generally prefer to receive cash now rather than in the future. Subject to the subsequent steps in the CBA, it is the option with the largest NPV that will be preferred.

The benchmark discount rate recommended by the Department of Finance is 8 per cent, with calculations also made for 6 per cent and 10 per cent, to test the sensitivity of the proposal to changes in the discount rate and implicitly to the phasing of costs and benefits.

The internal rate of return (IRR) is typically presented as supplementary information to the NPV. The IRR is the discount rate which cause the NPV to become zero. The project’s IRR needs to be above the benchmark discount rate for the project to be considered viable (financially or economically, depending on the nature of the analysis).

The diagram overleaf has been prepared to explain in simple terms the mechanics of preparing a Sectored Cost Benefit Analysis. For each of the years 1, 2, 3 & n the columns above the line represent benefits expressed in dollar terms and the columns below the line represent costs. The shaded columns represent one type of cost and the unshaded columns another.

In reality there will be a number of different types of costs and benefits as discussed above and the number of years may extend to quite a long time frame.

The first chart titled Nominal Costs and Benefits shows how costs and benefits can be arrayed. They are expressed in present day dollars even though beyond year 1 they clearly represent future expenditure. They are not inflated because it is pointless inflating them if they are only going to be deflated again by application of a nominal discount rate (see separate discussion on discount rates).

Note
A situation where a cost or a benefit should be inflated is where the inflation rate varies between items. For example the inflation rate on building costs may be different to the rate on land values.

Only two types of costs and benefits are shown (Types A & B) but in reality there would be a greater number.

The second chart titled Summed and then Discounted Costs and Benefits shows how the costs and benefits are added for each year (Type B is stacked on Type A). A present value of the total in each year is calculated by reverse application of the compound interest formula where the interest rate is substituted by the selected discount rate. The discounted value is shown beside the added costs and benefits as a dashed column in each year. (See Appendix B for a discussion on discount rates).

Note

\[
\text{Present Value} = \frac{\text{Future Value}}{(1+\text{Discount Rate \text{pa}})}^{\text{Years}}
\]

Normally the discounted cash flow is set up in a computer-based spreadsheet and the Present Value is calculated by a standard financial function.

The third chart titled Discounted Benefits and Costs Summed in Year 1 to Give Present Values and Net Present Value shows how all of the discounted values from each year are stacked in year one to give the total present value of all costs and the total present value of all benefits.
Benefits

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year n</th>
</tr>
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Costs

<table>
<thead>
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<th>Year 2</th>
<th>Year 3</th>
<th>Year n</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
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</table>

Nominal Benefits and Costs

Discounted Benefits and Costs

Summed and then Discounted Benefits and Costs

Discounted Value

Present Value of benefits is Year 1 value plus discounted values from subsequent years

Benefit/Cost Ratio is Present Value of Benefits / Present Value of Costs - About 0.9 in this Instance.

Net Present Value is Present Value of Benefits Minus Present Value of Costs - Negative in this Instance

Present Value of costs is Year 1 value plus discounted values from subsequent years

Discounted Benefits and Costs Summed in Year 1 to give Present Values and Net Present Value
The Mechanics of Cost benefit Analysis - the Discounted Cash Flow Framework
To recap, the purpose of the discounted cash flow framework is to account for the effects of time, that is, the fact that a benefit or cost in the future is valued differently than the same benefit or cost today.

At this point the Benefit-Cost Ratio (BCR) can be calculated. It is simply the present value of all benefits divided by the present value of all costs. In the example shown it happens to be less than one, indicating an unworthy project.

Also shown is the Net Present Value (NPV), which is simply the present value of all benefits minus the present value of all costs. In the example the NPV is negative. Arithmetically, this will always be the case when the BCR is less than one. (See also Appendix A – Simplified Spreadsheet Illustrating Application of Sected Cost Benefit Analysis).

7. SENSITIVITY ANALYSIS

Department of Finance Guideline

The values of future costs and benefits on which the NPV is based are forecasts of the future and cannot be known with certainty. While they are, or should be, the ‘most likely’ values, it is important to test the NPV for the ‘optimistic’ and ‘pessimistic’ scenarios. This is undertaken by changing the values of key variables in the analysis and measuring their impact on the size of the NPV. This is known as sensitivity analysis.

Where the NPV is shown to be sensitive to changes in a variable, the analyst should check on the appropriateness and impact of this variable, and whether any changes to the design of the program, or underlying assumptions, are warranted. Uncertainties which could have a significant impact on the project outcome should be clearly detailed in the report and, if necessary, monitored during implementation.

Sensitivity analysis is aided by the spreadsheet-based model that allows an infinite number of assumptions to be tested. As stated above though these should be selected within the feasible range, normally defined by a scenario containing pessimistic assumptions for all of the key variables and another containing optimistic assumptions.

A method commonly used to present the results of sensitivity analysis is to display the results in a matrix similar to the example below.
8. CONSIDER EQUITY AND DISTRIBUTIONAL IMPLICATIONS

Department of Finance Guideline

The cost-benefit procedure involves aggregating costs and benefits across individuals, without any regard to the distribution of those costs and benefits between individuals. However, decision-makers will normally want to be aware of who may ‘gain’ and who may ‘lose’ as a result of a proposal.

To illustrate, a CBA of a new road that bypasses a country town will compare, primarily, the costs of constructing the new road with the benefits in terms of travel time savings for travellers and reduced accidents (involving both travellers and local residents). However, building the road would also have distributional consequence: for example, retailers in the town may be adversely affected while new retailing opportunities may open up along the new road.

There may also be broader social justice considerations if those who gain or lose from an activity are predominantly from one social grouping. In particular, a problem may arise if the grouping is a low-income one. Benefits are typically measured in terms of observed willingness to pay market prices for a good, or for a related good. However, willingness to pay is generally constrained by income earned and assets owned, and these are not distributed equally in the community. In these circumstance, the project’s NPV may be considered an inadequate measure of its worth to society and decision-makers would need additional information on the distributional consequences of the project to determine its overall merit.
In Section 5 a summary of the costs and benefits that are relevant to cost benefit analysis is provided along with the incidence of these – whether they affect the Authority, tenants, relocated tenants, prospective tenants, other residents in the neighbourhood or society generally.

The point made in the Department of Finance Guideline above that The Net Present Value determined by reference to market values may undervalue costs and benefits accruing to certain (low income) groups must be born in mind.

If, for example, a contraction of public rental supply in a region is contemplated in conjunction with a land harvesting approach to renewal, the impact on prospective tenants may be slight if there are affordable alternatives available in the private rental sector, but they may be great if this is not the case.

Thus it is necessary to go beyond simply identifying the winners and losers to appreciate the nature of the costs and benefits involved. Again research and guidance from the program level is essential.
9. REPORT

Department of Finance Guideline

The final step in the process is to write up the analysis and prepare a recommendation(s). The recommendation involves consideration of both the NPVs of alternative options and of their accompanying features which may be less than fully quantified. The reasons for a particular recommendation should be clearly set out. The report should include:

- an executive summary of the results and recommendation(s);
- the background to the analysis – why was it undertaken;
- the objectives of the project, program or activity;
- the options considered;
- the time profiles of costs, benefits and net benefits, together with information on the sensitivity of those profiles to alternative scenarios;
- the key assumptions underpinning the analysis;
- the NPVs obtained;
- other important information including distributional effects, other quantified costs and benefits, and intangible costs and benefits;
- how the preferred option compares with its alternatives; and
- how the outcome of the proposal could later be evaluated.

It is important to report clearly the assumptions used in forecasting the costs and benefits of the proposal or program. Depending on their scale and complexity, these can be included in a supplementary report.

The above guideline for presenting the results is useful in that it would assist in making comparisons between projects if a similar format is used. The benefit of this is that examples of good practice can be highlighted and disseminated nationally.
REFERENCES

There is an extensive literature on the subject of cost benefit analysis and on the micro-economic theory and econometric techniques that underpin its concepts. Most of the relevant publications are referenced in the Department of Finance Guidelines.

Department of Finance (Commonwealth), (1997) Introduction to Cost Benefit Analysis for Program Managers, AGPS, Canberra.


Sugden, R., & Williams, A. (1985), The Principles of Cost-Benefit Analysis,
ATTACHMENT A
APPENDIX 4
Simplified Spreadsheet Illustrating Application of Sectored Cost-Benefit Analysis.

Attached are two spreadsheets (each in two parts) which show a simplified application of a cost benefit analysis. The purpose of these is to further explain some of the concepts inherent in such an analysis and to demonstrate some of the mechanical aspects of the discounted cash flow framework.

Note that the values entered are purely hypothetical.

The first spreadsheet is titled **Step 1 Analysis - Direct Costs and Benefits.** The features of the spreadsheet are:

- All costs and benefits are entered in present day values. They are not inflated because a nominal discount rate is used and this simply has the effect of deflating them again. A real discount rate can be arrived at by subtracting the inflation rate from the nominal discount rate (note this is an approximation as the rates are not totally additive). For example, if the nominal discount rate is 7%pa and inflation is 2%pa the real discount rate (approx.) is 5%pa.
- For 7 types of direct costs values are entered over a twenty-year timeframe. The timeframe should be extended to say 50 years if the project was of an indefinite timeline.
- The opportunity cost on current assets is entered in year 1 to reflect the deployment of these assets and to make the analysis comparable with other options that might deploy different amounts of assets. This has the effect of taking existing recurrent income and expenditure out of the equation, obviating the need to analyse changes in these variables. Note that the status quo scenario can be modelled to provide a comparison between the existing situation and redevelopment.
- The capital costs of redevelopment are entered in the years that they occur. The spreadsheet could be designed to itemise these, potentially to a high level of detail. This might be desirable if it is proposed to set different design options.
- The recurrent costs are entered on the basis of forecasts (i.e. maintenance, rates, etc.).
- Tenant management expenditure is entered when it occurs during the project. This covers the cost of consultation and the like.
- Tenant relocation expenditure is also entered. This covers compensation payments, etc.
- The spreadsheet shows that the present value of all of the costs at a 5%pa discount rate is $5.7mil. This means that an entity with a discount rate on future money of 5%pa will be indifferent between this lump sum today and the expenditure stream shown. In addition, it means that $5.7mil. placed in
the bank today at a 5% compound interest rate would enable all expenditure obligations over the 20 year period to be met.

- Note that a range of discount rates could be used by way of sensitivity analysis, that is, to check whether the result changes when the discount rate changes. If it does, recourse must be made to the discussion on the rationale for discount rates.

- In the Step 1 analysis there are only 3 benefits considered the first being the sale of surplus assets. This might take place over time or it might be a one-off event as shown in this case.

- The second benefit is the measure of the housing benefits to the tenants (the house, neighbourhood amenity, etc.). The measure is the market rent that can be imputed to the dwellings. Recall that increases in market rent are not a consideration as the analysis assumes that the original incomes derived from the assets are capitalised into the opportunity cost born by deploying the assets.

- The third benefit is the sale on wind up. The longer the time period the less significant this factor will be, due to the discounting effect.

- The present value of all of the benefits is $5.5mil and the benefit cost ratio is 0.96. If such a result was arrived at in a real analysis this would indicate a project not worth doing.

The second spreadsheet is titled **Step 2 Analysis - Direct and Indirect Costs and Benefits.** The features of the spreadsheet are:

- The first row transfers the total of all costs from the Step 1 analysis.

- The second row of costs is the tenant dislocation costs, which might derive from lost social support networks. These costs will have to be based on shadow prices derived from other research.

- The third row is the costs relating to reduced housing opportunities in the region which again must be shadow priced.

- The spreadsheet shows that the present value of the costs has increased from $5.7mil in the Step 1 analysis to $7.7mil in the Step 2 analysis.

- Benefits are treated in a similar fashion in that the first row transfers the benefits from the Step 1 analysis.

- The second row of benefits is the spillover effect to other housing in the area, which is measured by reference to market rent increases. Unlike the public rental assets these assets have not been redeployed, therefore there is no opportunity cost on the capital involved.

- The third row is society wide reduced social dysfunction which again must be shadow priced by reference to other research.

- The spreadsheet shows that the present value of the benefits has increased from $5.5 mil in the Step 1 analysis to $11mil in the Step 2 analysis. The benefit cost ratio is now 1.43 indicating a highly desirable project.

Thus it can be seen that the result of the analysis can be reversed by including indirect costs and benefits. In a real-world case the results might well be the other way around though. Importantly, the spreadsheet can be a powerful tool
when used to test alternative assumptions. A wide range of what if questions can be explored and, if required, the analysis can be turned around to answer questions such as what would the magnitude of the tenant dislocation costs have to be to render the project undesirable?

### PUBLIC HOUSING ESTATE REDEVELOPMENT
**SIMPLIFIED SPREADSHEET ILLUSTRATING APPLICATION OF COST-BENEFIT ANALYSIS**

#### Step 1 Analysis: Direct Costs and Benefits

<table>
<thead>
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<td><strong>Sub-total</strong></td>
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</table>

| BENEFITS                     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sale of Surplus Assets       | $250,000 |        |        |        |        |        |        |        |        |        |        |        |        |
| Housing Benefits (Market Rent)| $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 |
| Sale on Wind-up              |        |        |        |        |        |        |        |        |        |        |        |        |        |
| **Sub-total**                | $581,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 |
| Present Value Benefits @ 5%  |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                              | $5,499,986 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 |
| Type 1 Analysis Benefit-Cost Ratio |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                              | 0.96 |        |        |        |        |        |        |        |        |        |        |        |        |

### YEAR 14 15 16 17 18 19 20 YEAR COSTS

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<td>Capital Costs of Redevelopment</td>
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### BENEFITS

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### PUBLIC HOUSING ESTATE REDEVELOPMENT

SIMPLIFIED SPREADSHEET ILLUSTRATING APPLICATION OF COST-BENEFIT ANALYSIS

#### Step 2 Analysis - Direct and Indirect Costs and Benefits

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<tr>
<td>BENEFITS</td>
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<tr>
<td>Type 1 Analysis Benefit-Cost Ratio</td>
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<th>18</th>
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<td></td>
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<td>$3,331,500</td>
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| BENEFITS | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $331,500 | $3,331,500 |
|          | $260,000 | $260,000 | $260,000 | $260,000 | $260,000 | $260,000 | $260,000 |
|          | $180,000 | $180,000 | $180,000 | $180,000 | $180,000 | $180,000 | $180,000 |
|          | $771,500 | $771,500 | $771,500 | $771,500 | $771,500 | $771,500 | $3,771,500 |
| Sub-total |          |          |          |          |          |          | $3,771,500 |
Cost benefit analysis requires the adjustment downwards or discounting of benefits and costs which are incurred in the future. The theoretical justification for this is that individuals are naturally reluctant to forego present consumption in favour of future gains. For this trade off of present for future consumption to occur, the (inflation free) value of the future gain would need to be greater than the present consumption that is displaced. Put another way, the value of a unit of future consumption must be less than that of a unit of present day consumption. For this reason, the discount rate is sometimes referred to as the time preference rate. Of course, the time preference rate may vary from individual to individual, from stage to stage in the lifecycle and, indeed, from generation to generation.

When individuals are persuaded to forgo present consumption, that is, when they are persuaded to save, the resultant accumulation of capital resources permits the investment which yields future income. Thus, in theory at least, the rate of interest displayed in capital markets equilibrates the collective time preference rate of all individuals and the rate of return on productive investment.

This discussion forms the basic rationale for the use of market derived discount rates in the evaluation of public sector program options. The argument is that government should deploy resources in accordance (at least) with the collective time preference rate of the community; if it does otherwise, it will be placing an unwarranted squeeze on current consumption.

But there are many reasons why market interest rates may not reflect the appropriate social time preference rate:

- The existence of imperfect capital markets or the presence of dis-equilibrium in capital markets. The rule that the market interest rate equates to the collective time preference rate holds only if the markets in question are perfectly competitive and if they have been allowed sufficient time to work through any 'exogenous shock'. Observed interest rates at any point in time may be more reflective of short to medium term adjustment processes rather than the aggregated time preference of the community. Moreover, to the extent that capital markets are oligopolistic (and they continue to be in Australia notwithstanding the entry of foreign banks), theory predicts that the equilibrium interest rate will embody a premium.

- The presence of externality effects. In forming their preferences with respect to the balance between future and present consumption, rational individuals
will consider only those benefits and costs which will impact directly upon themselves or, perhaps, their families. They will tend to ignore the external effects of their consumption/saving decisions. However, Government investment and expenditure decisions must take into account the totality of the resultant impacts, including those sustained by third parties. Thus, if as alluded to above, investment in housing programs yields benefits indirectly to the wider community as well as directly to the program clientele these additional future benefits must also impinge upon the fixing of an appropriate discount rate.

- The need to consider the welfare of future generations per se. Even if the market interest rate adequately measured the collective time preference rate and could be adjusted for external impacts, its applicability to public program evaluation would be limited. This is due to the fact that the self-interest driver of time preference provides little guidance as to the resources which should be invested for the sake of future generations. Governments, of course, have a responsibility to think long-term and, as such, must be more conservative about discounting benefits and costs accruing in the more distant future. In other words, it should be difficult for Governments to trade-off the well-being of future generations to create benefits for the present day community.

Basic theory therefore implies that the market interest rate should be regarded as an absolute upper bound discount rate for use in public program evaluation.

There are other reasons for adopting such a conclusion. Firstly, the market interest rate will tend to embody a risk premium to cover the possibility that private investment projects will not yield their anticipated stream of income. Because of its special role and the diversity of its portfolio, government can be seen to be immune from such a premium. Secondly, market interest rates embody a further premium reflecting the taxation liabilities accompanying the relevant income stream. Of course, these liabilities are not relevant to government investment projects.
Some Methodological Questions

Arising from the foregoing discussion are some methodological questions including those discussed below.

Shouldn't the Analysis be done on the Basis of Changes in Costs and Benefits?

In economic terminology an analysis of this nature is termed marginal analysis. The types of variable included are:

- changes in asset values;
- changes in market rent; and
- changes in recurrent costs (e.g., maintenance).

A number of analyses have been examined based on this approach and they share a common problem in that they are difficult to interpret and they are prone to methodological errors such as including both market rent increases and improvements to neighbourhood amenity as benefits. This effectively counts the same benefit twice. Market rent increases should be viewed as a measure of the value of neighbourhood amenity enhancement (amongst other things) not a benefit in itself.

The recommended approach to dealing with changes in the variables is to include the status quo alternative in the analysis (see below).

What Options Should be Looked at?

Ideally, individual project evaluations should take place within an overall policy framework, preferably with guidelines giving direction on the nature of public housing demand in the region and providing targets for dwelling numbers and types. It is only at the program level that global budgets can be dealt with, and it is at this level where the costs and benefits of outcomes such as a contraction of public rental stock can be effectively addressed. It is recognised though that research dealing with these factors will need to be regionally specific.

The options evaluated may include any or all of the following:

- The walk away option is a possibility in some cases and financial managers who see great benefit in a short-term cash inflow sometimes advocate this. In financial management terms the notion of adding value to estates with further investment of time and resources is seen as being risky and hence a high discount rate is applied to potential future revenues.

- The status quo option is also a possibility, although generally projects are being evaluated because it is known something needs to be done. Inclusion
of the status quo option has the advantage of obviating the need for a marginal analysis and the methodological difficulties this can have (see above).

A further advantage of including this option is that it can aid in decision making. In theory, a cost benefit analysis is absolute in that if the cost benefit ratio is greater than one the project is worth doing. But there may be problems accurately shadow pricing some of the intangible variables. The status quo may provide a benchmark and the decision rule might be to select a project with a higher cost benefit ratio than the status quo.

- Other options will relate to project design with the main variables being the proportion of public rental, the standard of housing, the standard of residential amenity, tenant relocation strategies and the like.

What About Joint Ventures?

Joint ventures with a private entity can take various forms. Instances where there is a real sharing of commercial risk appear to be quite rare in current practice although there are some projects where there is deferred payment for land. More common is the outsourcing of the project management function.

Whatever the arrangements for a joint venture these should be able to be disentangled to identify the real cost to the authority. This would need to be done for the purpose of evaluating the joint venture arrangements in any event and for the normal processes of public accountability and transparency. Joint venture partners should not be identified as beneficiaries or bearers of costs in a cost benefit analysis as they are merely agents in the production process, the same as builders and financiers.

What About Rates and Developer Contributions?

The question has arisen in the context of another question – should the local council be identified as a beneficiary? The answer to this question is no. Rates and other charges fund goods and municipal services produced by the local council, which is a non-profit entity. The estate will consume its share of such services. Thus these charges are simply entered as costs in the cost benefit analysis.

What About Taxes and Subsidies?

At the project level the effects of new costs and benefits are likely to have only incremental effects on taxes and subsidies and are therefore ignored in the analysis. However, a cost benefit analysis at the program level may involve significant displacement effects that would need to be taken into account.