

# **Flexible guidelines for the design of remote Indigenous community housing**

authored by

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## ABBREVIATIONS

ABS	Australian Bureau of Statistics
AHURI	Australian Housing and Urban Research Institute
AIHW	Australian Institute of Health and Welfare
APY	Anangu Pitjantjatjara Yankunytjatjara
ARHP	Aboriginal Rental Housing Program
ARIA	Accessibility/Remoteness Index of Australia
ATSIC	Aboriginal and Torres Strait Islander Commission
ATSIS	Aboriginal and Torres Strait Islander Service
BAC	Bawinanga Aboriginal Corporation
BBF	Building a Better Future
CAEPR	Centre for Aboriginal Economic Policy Research
CHIP	Community Housing and Infrastructure Program
CIAS	Community Information Access System
COAG	Council of Australian Governments
CSHA	Commonwealth–State Housing Agreement
DOGIT	Deed of Grant in Trust
DPI	Department of Planning and Infrastructure (Northern Territory)
FaCSIA	Commonwealth Department of Family and Community Services and Indigenous Affairs
FHBH	Fixing Houses for Better Health
HIHI	Healthy Indigenous Housing Initiative
HMAC	Housing Ministers Advisory Committee
ICHO	Indigenous Community Housing Organisation
IHANT	Indigenous Housing Authority of Northern territory
NAHS	National Aboriginal Health Strategy
NFDCMIH	National Framework for the Design, Construction and Maintenance of Indigenous Housing
NIC	National Indigenous Council
NIHG	National Indigenous Housing Guide
NRF	National Reporting Framework
NT	Northern Territory
NTIHP	Northern Territory Indigenous Housing Program
OAH	Office of Indigenous Housing (South Australia)
PIASC	Palm Island Indigenous Shire Council
SCIH	Standing Committee on Indigenous Housing
SRA	Shared Responsibility Agreement

# 1 INTRODUCTION

The mathematics are defeating us now – and will continue to do so unless radical changes are enacted. Even on absurdly conservative projections, in 33 years time at current construction rates we would still be lagging unmet demand by 16 years – and probably much more than that...

You can tick every box: health, education, training, employment, community harmony, substance abuse, violence, criminal behaviour. *With all our best efforts and despite great financial outlays, without decent housing our chances of solving these problems are likely to be largely futile.*

Elliot McAdam MLA<sup>1</sup>

Minister for Housing, Local Government & Sport, Northern Territory Government

## 1.1 Background

This report is a response to the need for a flexible framework of design guidelines – herein called a “design system”<sup>2</sup> – for remote Indigenous housing. As such, the project will provide concepts and design principles to supplement the focus on safety, health, quality control and sustainability in the *National Indigenous Housing Guide*<sup>3</sup>, and related State and Territory guidelines, with principles for the design and modification of Indigenous housing that reflect the ways in which Indigenous people use their homes and which meet the cultural and social requirements of Indigenous communities in remote Australia.

This AHURI project is being conducted at an opportune time in the development of policies and programs for Indigenous housing in remote parts of Australia. Mass media reporting of social unrest in “Top End”<sup>4</sup> communities in May-June 2006 has increased public awareness in the rest of Australia of the need for vast and rapid improvements, and raised the attention of governments at all levels to the need for urgent action. The many housing initiatives under the National Aboriginal Health Strategy (NAHS), the Commonwealth-State Housing Agreements (CSHA) and the Community Housing and Infrastructure Program (CHIP) over the past decade and more have sought improvements in access to housing and attention to family and household needs in relation to sanitation, hygiene, family size, storage etc. As this report indicates, the news is not all bad: there are many lighthouse models of exemplary practice in the design, procurement and delivery of Indigenous housing in many parts of Australia. (See Section 4.)

Despite this, current patterns of housing design and provision are meeting neither the functional needs nor the personal and cultural aspirations of many Indigenous families. As well as the dire shortage of housing and huge maintenance backlogs in almost all Indigenous communities in remote parts of Australia, the need for significant change is made all the more urgent by issues related to individual and family mobility and fluctuating household size, the cultural importance of the extended family, the importance of housing to health and well-being, and the emerging needs of special

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<sup>1</sup> McAdam, E. (2006) Our house is in order – as a nation, now let’s join together in building homes for our fellow Australians. Parliamentary Statement on Indigenous Housing, Parliament of the Northern Territory, Darwin, February. (bold in original)

<sup>2</sup> See Section 1.4 for a definition of “design” and “design system”.

<sup>3</sup> Department of Family and Community Services (2003) *National Indigenous Housing Guide*, 2nd edition, Department of Family and Community Services, Canberra. Note: A third edition is due for publication in 2007.

<sup>4</sup> The “Top End” of Northern Territory is a popular name for the land surrounding Darwin and stretching east to Arnhem Land and south to Kakadu.

categories such as aged community members and the desire of young adults for single person and couple accommodation.

Writing almost twenty years ago, Paul Memmott noted that, even back then, discussions about the “Aboriginal housing problem” were decades old and that “One might well ask ... ‘Why isn’t it solved?’”. He went on to define the problem as follows:

Many groups of Aborigines suffer high levels of physical and mental stress which appear to be causally linked (either directly or indirectly) to their domiciliary environment. Stress-related factors include lack of protection from the weather, living in squalor, crowding, alcoholism, domestic violence, widespread ill-health, insecurity arising from the temporariness of living circumstances.... Occupants may find it very difficult to escape from such circumstances even if motivated to do so, due to lack of finance and credibility which in turn arises from a lack of employment and education.<sup>5</sup>

This description is little different from the many case studies in Michael Heppel’s 1979 *Black Reality: Aboriginal Camps and Housing in Remote Australia* or the Introduction to the National Indigenous Housing framework of 1999, which stated that

... it is now evident that there are fundamental problems with the way houses for Indigenous people are designed and built, especially in the rural and remote regions of Australia.

Many houses are not culturally appropriate in their design. They are often poorly built, and there has been no systematic approach to their repair and maintenance. Furthermore, building codes fail to address the particular requirements of Indigenous housing in rural and remote communities.<sup>6</sup>

The result is that Memmott’s 1988 definition of the problem is still valid and aptly describes living conditions in even many of the more successful Indigenous communities today. For example, Yarrabah<sup>7</sup> near Cairns is often seen as a success story in Indigenous housing management, but still has an average of more than ten persons per household<sup>8</sup>, with housing described as “the most critical issue confronting the Yarrabah community”. Indeed,

Inadequate housing affects every aspect of community life: it affects children’s schooling, it affects residents’ health, it makes it harder for people to work, it reduces opportunities to save money, it inflames tensions between families, and it creates conditions for substance abuse, violence and juvenile crime.<sup>9</sup>

There have been several attempts in recent years to quantify the state of Indigenous housing in Australia as a way of accurately identifying current patterns of provision and current and future needs. For example, *The Indigenous Housing Indicators 2003–04* report<sup>10</sup>, compiled by the Australian Institute for Health and Welfare (AIHW), provides

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<sup>5</sup> Memmott, P. (1988) Aboriginal housing: The state of the art (or the non-state of the art), *Architecture Australia*, June, p. 34.

<sup>6</sup> Commonwealth, State and Territory Housing Ministers’ Working Group on Indigenous Housing (1999) *National Framework for the Design, Construction and Maintenance of Indigenous Housing*, Department of Family and Community Services, Canberra, p. 1.

<sup>7</sup> Wenham (2006) reports that “Yarrabah collects about \$1 million per year in rent, has little in the way of rental arrears and its housing stock is well maintained by about 40 local tradesmen employed by the council.” See Wenham, M. (2006) Back to basics, *The Courier Mail*, 3-4 June. See also Mitchell, P. (2000) Yarrabah: A success story in community empowerment, Australian Institute of Family Studies. On-line at <http://www.aifs.gov.au/ysp/pubs/bull4mitchell.pdf>. (Accessed 2 July 2006).

<sup>8</sup> In Maningrida and Palm Island, two of the case study communities in this research, household sizes of 15 to 20 are not uncommon.

<sup>9</sup> Wenham (2006), op.cit.

<sup>10</sup> Australian Institute for Health and Welfare (AIHW) (2005a) *Indigenous Housing Indicators 2003–04*, AIHW, Canberra.

data on 37 indicators of Indigenous housing across the seven outcome areas outlined in *Building a Better Future* (BBF) the national and State/Territory Housing Ministers' 10-year plan for improving Indigenous housing adopted in 2001.<sup>11</sup>

In terms of the assessment of housing need, Neutze, Sanders and Jones<sup>12</sup> have modelled three dimensions of housing need (homelessness, overcrowding and affordability). A 2005 AIHW report on Indigenous housing needs used these three plus two others (connection to services and need for repairs or replacement).<sup>13</sup> In all such reports, a significant level of housing need, where overcrowding and poor dwelling conditions are suffered by a large number of Indigenous households, is identified with major disparities of provision, access and quality between Indigenous and non-Indigenous housing in Australia. From their analysis, Neutze, Sanders and Jones concluded that the best way of describing housing need was through estimates of the funds needed to redress the problems. Extrapolating from 1999 ATSI figures, Elliott McAdam, the Minister for Housing, Local Government and Sport in the Northern Territory, estimates this as A\$1 billion in the Northern territory and A\$2.56 billion nationally<sup>14</sup> (and a total of A\$3.5 billion if the cost of associated infrastructure is included<sup>15</sup>).

In the wake of the social unrest in Indigenous communities in early 2006, Ministers for Housing and Indigenous Affairs from around Australia met in June to scope a way forward. They agreed that at least 18,000 homes for Indigenous Australians needed to be built in the next three years and that an entirely new system for allocating Indigenous housing would be developed.<sup>16</sup> Their outline of such a new system primarily focuses on issues of governance and financing with a centralisation of responsibility in State/Territory governments and a reduced role for the Commonwealth, local community councils and housing cooperatives and groups.

This report seeks to contribute to the development of this new system by laying the groundwork for research into a new design system for the delivery, procurement and maintenance of Indigenous housing in remote Australia. There are two reasons for the focus on such a comprehensive, design-based approach. The first is to integrate the perspectives of the many relevant disciplines – anthropology, architecture, policy, economics, public health construction, etc. – that can provide insights into the development of housing that contributes positively to social well-being for remote Indigenous communities. The second reason is to respond to the voices of all the stakeholders who are involved in Indigenous housing, from families and households in remote communities to local housing and health officers, Indigenous community councils, relevant state/territory and Commonwealth government officers, building companies and tradespersons, architects and project managers. The perspectives of these many disciplines and stakeholders are represented in this study.

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<sup>11</sup> Housing Ministers Advisory Council (2001) *Building a Better Future: Indigenous Housing to 2010*, Australian Housing Ministers' Ten Year Statement of New Directions for Indigenous Housing. On line at [http://www.housing.qld.gov.au/pdf/atsih\\_building\\_future.pdf](http://www.housing.qld.gov.au/pdf/atsih_building_future.pdf) (accessed 7 June 2006).

<sup>12</sup> Neutze, M., Sanders, W. and Jones, R. (2000) *Estimating Indigenous Housing Need for Public Funding Allocation: A Multi-measure Approach*. Technical Report Discussion Paper No. 197. Centre for Aboriginal Economic Policy Research, ANU, Canberra.

<sup>13</sup> Australian Institute of Health and Welfare (AIHW) (2005b) *Indigenous Housing Needs 2005 - A Multi-measure Needs Model*, AIHW cat. no. HOU 129. Australian Institute of Health and Welfare, Canberra. Data on two additional measures (housing appropriateness and security of tenure) were found not to be sufficiently developed in official statistics to be used for quantitative comparative purposes.

<sup>14</sup> McAdam, E. (2006) Welcome Address to Northern Territory Indigenous Housing Workshop, Darwin, 11-12 July.

<sup>15</sup> See <http://www.alicespringsnews.com.au/1328.html> (accessed 3 August 2006).

<sup>16</sup> Karvelas, P. and Wilson, A. (2006) Revamp for Aboriginal housing, *The Weekend Australian*, 17-18 June. The source of the figure of 18,000 new homes is not given. However, The Standing Committee on Indigenous Housing (SCIH) has estimated that by 2009, there will be a need for 7,600 homes in remote Australia and 10,400 in urban areas to satisfy Indigenous housing needs, making a total of 18,000.



## 1.2 Scope and purpose of the study

This study draws upon and extends recent AHURI projects on Indigenous housing, especially Project 80124 on *Indigenous housing and governance: lessons from case studies of remote communities in WA and NT*<sup>17</sup> and Project 40184 on *Best practice models for effective consultation towards improving built environment outcomes for remote Indigenous communities*.<sup>18</sup>

This study is distinctive as it is the first AHURI project on Indigenous housing to have an explicit design focus. As such, it seeks to apply the lessons of past projects, and the current one, to practical on-the-ground outcomes for Indigenous households.

This project also builds upon the platform of the *National Indigenous Housing Guide*<sup>19</sup> to develop principles and tools for the design/modification of Indigenous housing in remote Australia. In this way the project supports the key desired outcomes of *Building a Better Future*<sup>20</sup> by providing tools to ensure that housing contributes to Indigenous health and well-being. Accordingly, the *National Framework for the Design, Construction and Maintenance of Indigenous Housing*<sup>21</sup> includes a *National Indigenous Housing Guide* based upon four principles - safety, health, quality control and sustainability.

This project elaborates these generic principles for local implementation in ways that reflect (i) cultural and social aspirations and requirements of Indigenous families and households, and (ii) housing needs of different family/household types and age groups. These outcomes support Principle 1.3 of *Building a Better Future* by providing tools to ensure that housing design and modifications are responsive to Indigenous culture in terms of environmental factors, cultural traditions, family and household patterns, and the special needs of people at different life stages.

It is especially important that house designs reflect cultural conceptions of, and use of, space. Australian Indigenous families traditionally use housing as a shelter around which the 'business of living' is conducted.<sup>22</sup> Similarly, Memmott and Moran note that the shaping and use of space is used to mediate social interactions and respond to geographic conditions.<sup>23</sup> This has led to a preference for 'informal and fluid living arrangements' and responsiveness to the need for warmth, shade, air circulation, and the location of fire and cooking places, sanitation and storage in the use of space. Thus, Indigenous households 'generally have different design needs to the non-Indigenous population'.<sup>24</sup>

However, current patterns of housing design are meeting neither the functional needs nor the personal and cultural aspirations of many Indigenous families. This is especially so when issues such as individual and family mobility, high levels of Indigenous homelessness, housing shortages and maintenance backlogs are also considered.<sup>25</sup>

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<sup>17</sup> See <http://www.ahuri.edu.au/publications/projects/p80124>.

<sup>18</sup> See <http://www.ahuri.edu.au/publications/projects/p40184>.

<sup>19</sup> Department of Family and Community Services (2003), *op. cit.*

<sup>20</sup> Housing Ministers Advisory Council (2001) *op. cit.*

<sup>21</sup> Commonwealth, State and Territory Housing Ministers' Working Group on Indigenous Housing (1999) *op. cit.*

<sup>22</sup> Neutze, M., (1998) *Housing and Infrastructure for Indigenous Australians*. Working Paper 65, ANU Urban Research Program.

<sup>23</sup> Memmott, P. and Moran, M. (2001) *Indigenous Settlements of Australia*. Environment Australia. On-line at [www.deh.gov.au/soe/techpapers/indigenous/settlement.html](http://www.deh.gov.au/soe/techpapers/indigenous/settlement.html) (accessed 20 September 2005).

<sup>24</sup> Jardine-Orr A. et al (2003) *Indigenous housing and governance: lessons from case studies of remote communities in WA and NT*, AHURI Final Report.

<sup>25</sup> Berry, M., et al (2001) *Indigenous Homelessness: A Discussion Paper*. Report to Aboriginal Housing Board of Australia, Melbourne.

As the Northern Territory *Public Health Bush Book* states:

Aboriginal community townships have usually been developed along the lines of any small rural Australian town, i.e. rows of three bedroom houses, built on quarter acre blocks ... This traditional solution is based on:

- a nuclear family residential model
- the need for separation and privacy from neighbours
- economy of service provision ... [leading to] spacing houses close together.<sup>26</sup>

Lee and Morris argue that such 'inappropriate and standardised built environments' undermine opportunities for Indigenous self-determination and cultural sustainability.<sup>27</sup> Thus, they extend the importance of appropriate designs for Indigenous housing beyond the provision of shelter to broader cultural factors that underpin health, family stability and community vitality in Indigenous Australia. More culturally responsive housing designs – both for new houses and the modification of existing ones – thus facilitate non-housing outcomes. For example, appropriate housing designs can reduce over-crowding and disregard for houses and property, thus circumventing the downward spiral of social disruption associated with overcrowded, poorly maintained housing. In turn, this can strengthen family stability, enhance familial authority with children, support school attendance, homework and educational performance, and reduce the conditions that often underpin substance abuse in the young and alcoholism and domestic violence among adults. Such wider policy outcomes are already being achieved in culturally responsive housing projects, e.g. by Tangentyere and Build Up Design in the Northern Territory, and HealthHabitat. These outcomes are also supported by research on housing and 'health hardware' by the Fred Hollows Foundation, and the Cooperative Research Centres for Desert Knowledge and for Aboriginal Health.<sup>28</sup>

### 1.2.1 Purpose and aims

This project seeks to build on such examples of good practice, emerging policy directions and the *National Indigenous Housing Guide* to develop a design system for delivering Indigenous housing that is affordable, liveable and socially sustainable for different family types in remote Australia. The aims are to:

1. Analyse how Indigenous people use dwelling spaces, their housing aspirations, and whether current housing designs satisfy such aspirations.
2. Analyse broader issues that affect the design of Indigenous housing, e.g. cultural needs, land tenure, infrastructure and planning and available building materials.
3. Assess impacts on dwelling functionality.
4. Develop principles and exemplars for the design and modification of Indigenous housing that can meet their cultural and social requirements.
5. Develop capacity within Aboriginal communities to manage design knowledge and provide opportunities for capacity building within the communities to further develop sustainable housing options.

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<sup>26</sup> Northern Territory Department of Health and Community Services (2002) *The Public Health Bush Book*. On-line at [http://www.nt.gov.au/health/healthdev/health\\_promotion/bushbook/bushbook\\_toc.shtml](http://www.nt.gov.au/health/healthdev/health_promotion/bushbook/bushbook_toc.shtml) (accessed 28 November 2005).

<sup>27</sup> Lee, V. and Morris, D. (2005) *Best practice models for effective consultation towards Improving built environment outcomes for remote Indigenous communities*, AHURI Final Report.

<sup>28</sup> For example, see: Wayte, K. et al (2004) *Framework for Research on Aboriginal Health and Physical Environment*, Final Report. CRC for Aboriginal Health.

## 1.2.2 Research themes and questions

### Theme 1: Design, aspirations and impacts

- How do current housing designs meet aspirations of different household types such as large and complex extended families, aged persons, single persons and households characterised by high mobility and fluctuating numbers? What impacts do current design practices have on household and community well being?

### Theme 2: Lessons from good practice

- What lessons from 'good practice' in socially sustainable Indigenous housing can be integrated into the design/maintenance of remote Indigenous housing?

### Theme 3: Flexible design framework

- What collaborative, community-derived principles can support the local implementation of the *National Indigenous Housing Guide* to reflect Indigenous cultural requirements, and the complexity of household types in their communities?
- What do government Indigenous and housing agencies see as opportunities and constraints in the implementation of the design framework and how do they see constraints being overcome?

## 1.3 Definition of terms

This is the first AHURI project to focus explicitly on the design of Indigenous housing in remote regions of Australia. Thus, it is important that three key terms be defined: remoteness, Indigenous housing and design.

### 1.3.1 Remoteness

Remoteness refers to being located at a distance from a specified or significant point of reference. As such it has both quantitative and qualitative meanings. Quantitatively, the Accessibility/ Remoteness Index of Australia Plus (ARIA+) measures remoteness in terms of a community's distance along a road network from each of five categories/sizes of service centres. These distances are scaled and averaged with the degree of remoteness indicated by relatively higher scores, i.e. communities that are more remote have relatively higher ARIA+ scores and, hence, less access to service centres.<sup>29</sup> The Griffith Service Access Frame considers a community's size and its economic resource base as well as distance from service centres in its assessment of access and disadvantage in Australia.<sup>30</sup>

On such scales, all three case study communities in this study rate as remote (Palm Island) or very remote (Maningrida and Mimili).<sup>31</sup> This means that they experience great difficulty in accessing the services they need and the products they wish to purchase. Goods take longer to reach the communities and cost much more than they do in major urban and provincial centres – and it costs communities and government agencies proportionately more to provide social, health and education services.

However, remoteness is also a qualitative concept and, in Aboriginal communities, can refer to the perception of isolation in relation to family and to cultural experiences and expectations. Thus, while Mimili, Maningrida and Palm Island may count as remote or very remote in terms of access to services – and the time needed and cost of transporting materials, especially for construction – the residents of these communities

<sup>29</sup> [http://www.gisca.adelaide.edu.au/products\\_services/ariav2\\_about.html](http://www.gisca.adelaide.edu.au/products_services/ariav2_about.html) (accessed 8 August 2006).

<sup>30</sup> <http://www.nexus.edu.au/teachstud/ARERA/research/DG1.HTM> (accessed 8 August 2006).

<sup>31</sup> Australian Bureau of Statistics (2001) *Information Paper, ABS Views on Remoteness*, Australian Bureau of Statistics, Canberra.

may believe that their proximity to traditional lands provides very favourable locations for homes and communities.

### 1.3.2 Indigenous housing

The cultural ideal of “house-as-home”, so common in many parts of the world and in non-Indigenous Australia, is not a part of Indigenous cultural traditions. Thus, living in a building comprised of contiguous spaces/rooms, each with specific functions that satisfy the physical and social needs of a nuclear family, is a relatively new experience – perhaps as new as one or two generations - for Indigenous Australians living in remote regions. Despite accommodating to many aspects of sedentary life, many Indigenous people retain a preference for living in flexible, mixed-use spaces inside a house, under a veranda, in the space surrounding a house (the yard), and in the open spaces between houses. And, whether for reasons of cultural preference or the severe shortage of housing and resultant over-crowding, many Indigenous households require sufficient space to accommodate an extended family. Cultural traditions in some communities require separate living areas for special groups, e.g. young men, thus increasing the complexity of housing provision that must be made. The development of out-stations as homes for small family groups on traditional lands adds to the complexity of Indigenous housing patterns also. Thus, as in research by project partners, Gini Lee and David Morris, the concept of housing is extended in this study to include what is generally encompassed in the term “built environment” to describe “all aspects of the physical environment, including the social, cultural and environmental attributes of places” not only dwellings but also open space, infrastructure and community services. All need to be considered in relation to the design of dwellings.<sup>32</sup>

### 1.3.3 Design system

Donald Schön argues that designers do not deal with well-formed problems in much of their daily work but with, as he puts it, “messy, indeterminate situations”.<sup>33</sup> This is certainly the case in designing for Indigenous housing in remote areas which calls for the development of a design system or framework that integrates the multidisciplinary mix of political, geographical, cultural, anthropological, historical, psychological, sociological, health, architectural, engineering, economic, landscaping and legal aspects of Indigenous housing into a transdisciplinary response to a family or group’s needs for shelter, security, health and well-being.

Thus, the process of designing a house – or any structure - is not limited to the act of drawing plans to shape and guide construction. Issues of form and aesthetics are important in design, as are responsiveness to the physical environment and local cultural experiences and expectations. These aspects of design make it an art form. However, design is also a social, environmental and technical undertaking. Indeed, it is a complex process that begins with initial discussions about aspirations and the feasibility of them for a building project and extends through the various and multiple stages of consultation with clients, drawing and revising concept and detailed plans, responding to quantity surveyors’ reports and cost estimates, specifying materials and fittings, project planning, construction management, developing a maintenance schedule and post-occupancy evaluation.

The concept of design in this study encompasses all these aspects of a design system.

As a result, achieving a successful design outcome requires the development of a Design Framework based upon:

- Consultation and site analysis to achieve a clear understanding of the problem(s) to be solved;

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<sup>32</sup> Lee and Morris (2005), *op. cit.*, p. 1.

<sup>33</sup> Schon, D. (1983) *The Reflective Practitioner: How Professionals Think in Action*, Basic Books, New York.

- Research investigating similar design solutions in the field or related topics
- Design brief stating mutually agreed design goals;
- Engagement, coordination and integration of expertise particular to the problem(s) to be solved;
- Production of architectural design options sufficient for client evaluation and selection of a design strategy;
- Development of the agreed architectural design strategy providing sufficient detailed design options for client evaluation of a final design solution;
- Documentation of the final detailed design to guide the building construction process
- Supervision of the construction process in accordance with the documentation; and
- Development and implementation of a post-construction management and maintenance plan, including provision for ongoing post occupancy evaluation (POE).

The goal of this research is to develop a Design Framework for housing in remote Indigenous communities. Thus, the research proposes an essential link between Indigenous culture and appropriate design. However, it is important that the Framework goes beyond a culturally augmented but, nevertheless, fairly typical design process because of the enormous cross-cultural gulf which separates the designer and the client. Thus, it is vital to give unambiguous emphasis to:

- the need for effective consultation and an anthropological understanding of the particular cultural norms of the client group
- the importance of the designer's (architect's) responsibility to creatively challenge the dominant patterns of standardised housing by more than responding to client aspirations, but mediated by the history of Aboriginal housing provision.

In terms of the need to understand the cultural norms, the Framework could imply that the messy, indeterminate character of the design problem can be understood through client meetings and interviews which, we suggest, cannot be assumed to be clarified by the client's limited experience of housing options, by unstated sensitivities relating to cultural taboos, or misunderstandings arising from the designers inability to speak the Indigenous language.

Secondly, designers (architects primarily) must be required to bring their professional design expertise to the design problem. Client aspirations whether they be mainstream clients or Indigenous clients are limited to personal experiences, limited perspectives, conformity etc. This is not to suggest that the designer ignore these aspirations and arrogantly and ignorantly impose their personal "artistic" or pragmatic preferences upon the client. However the client is not usually a designer and the designer's responsibility therefore is to both acknowledge and challenge the aspirations of the client by providing numerous and often contrasting design options so that some mutual evaluation of those options can be determined.

The history of Aboriginal housing would appear to an expedient imposition of mainstream housing patterns because of a failure to combine a deep understanding of cultural norms with the expertise of a professional designer. The Design Framework proposed in Chapter 5 seeks to overcome this problem.

## **1.4 Overview**

The chapters that follow seek to position the research at the intersection of current issues in remote Indigenous communities, the political responses to these and wider issues of Indigenous disadvantage, the range of cultural, social, economic and

environmental factors impacting on the housing design system in remote Indigenous communities, and processes and examples of leading practice in effective design for housing in these communities.

Chapter 2 outlines the consultative approach to research that has been planned. This includes consultations with State/Territory agencies for Indigenous affairs and housing, relevant Community Councils where the fieldwork will take place, and successful design practitioners in Australian Indigenous housing. This includes face-to-face interviews and a validation survey. Consultations will also take place with formal and informal leaders and sample householders in the three case study communities on each of two visits to the communities. The protocols for conducting research with Indigenous people developed by AHURI and the Australian Institute for Aboriginal and Torres Strait Islander Studies are also analysed in this chapter and the principles that will guide field research outlined.

Chapter 3 provides an overview of the policy context for Indigenous housing in Australia by briefly summarizing key policy documents in place to guide Commonwealth and State/Territory governments. These include: the 1999 National Framework for the Design, Construction and Maintenance of Indigenous Housing, the 2001 Australian Housing Ministers' "Ten Year Statement of New Directions for Indigenous Housing", titled Building a Better Future: Indigenous Housing to 2010, the National Aboriginal Health Strategy (NAHS) and The National Indigenous Housing Guide (NIHG). Chapter 3 also discusses core shifts in policy making in this area, which have resulted from the abolition of the Aboriginal and Torres Strait Islander Commission (ATSIC) in 2004 and the mainstreaming of its responsibilities across a number of Commonwealth departments under the coordination of the Department of Family and Community Services and Indigenous Affairs (FaCSIA) in 2004/2005. This serves as a background to a review of the housing policies for the Northern Territory, Queensland and South Australia where the three case study communities of Maningrida, Palm Island and Mimili, respectively, are located.

The focus of Chapter 4 is an analysis of the range of factors that have impacted upon the implementation of Indigenous housing policy in remote areas in recent times. Five key factors are considered: socio-demographic issues; culture and design; consultation processes; the costs of remoteness; and procurement and delivery processes and systems. The focus in this chapter is the implications of these factors for appropriate design for remote Indigenous housing, not on the number or provision of houses, per se. However, the two cannot be separated as a key issue impacting on design quality is the need to spread available funds broadly in order to build the largest number of houses at the best price – and design is often neglected in the short-term budgeting behind this process. The advantages and disadvantages of using standardised house plans for dealing with this conundrum are considered.

The final chapter, Chapter 5, reviews the principles underlying the work of a number of Indigenous housing agencies, community councils and architects that have taken the opportunities that effective design practice offers to contribute to improved housing quality, respect customary practices and advance social well-being in remote Indigenous communities. This chapter reviews the three broad approaches they have adopted by analysing both the design philosophy and practice characteristic of each one. These are the "environmental health", "cultural design" and "housing as process" approaches. The purpose of this review of "best practice" approaches is to illustrate ways in which architects sensitive to the socio-demographic, cultural, environmental and economic issues discussed in the previous chapter are developing an effective design practice for remote Indigenous housing. The chapter concludes with a synthesis of the key features of these "best practice" approaches into a draft ten-point Framework for Effective Design Practice.

## 2 RESEARCH DESIGN

### 2.1 Research phases

As indicated in Section 1.2, this project seeks to build on examples of effective design practice for remote Indigenous housing, emerging policy directions and the *National Indigenous Housing Guide* to develop a design system for delivering housing that it is liveable and socially sustainable for different Indigenous family types in remote Australia. With its focus on learning from best current practice, responding to the housing aspirations of the various household types found in remote Australia, and integrating these with the research literature, the aims are being addressed through eight research phases:

**Table 1: Research phases**

<i>Phase 1</i> Literature review	Review of literature on Indigenous housing policy and issues related to design and delivery of housing in remote parts of Australia.
<i>Phase 2</i> Interviews	Interviews with State/Territory agencies for Indigenous affairs and housing, relevant Community Councils where the fieldwork will take place, and successful design practitioners in Australian Indigenous housing. See Annex 1 for a list of all interviewees and Annex 2 for the interview schedule.
<i>Phase 3</i> Preparation of Positioning Paper	The results of the literature review and interviews are synthesized in this Position Paper with: → Chapter 3 outlining the policy context of Indigenous housing in Australia with a particular focus on policies and practices in Queensland, South Australia and the Northern territory, where the three case study communities are located. → Chapter 4 analysing issues that affect the design and construction of remote Indigenous housing → Chapter 5 reviewing the range of “best practice” in the design and construction of remote Indigenous housing in Australia and synthesising these into a draft framework for a best practice design system for remote Indigenous housing.
<i>Phase 4</i> Validation survey	The draft framework for a best practice design system for remote Indigenous housing will be sent to all those interviewed in Phase 2 for validation/revision. See Annex 3. It will then be assessed in the field through three case studies.

<i>Phase 5</i> Case studies	<p>Case studies will be conducted in three remote communities in Northern Territory (Maningrida), Queensland (Palm Island) and South Australia (Mimili). Case study research will involve two fieldwork visits. Following extensive pre-visit contacts to establish relations with community management and informal leaders to guide the fieldwork, the first visit will:</p> <ul style="list-style-type: none"> <li>→ Select and train co-researchers</li> <li>→ Analyse socio-demographic and economic factors affecting housing provision/need</li> <li>→ Analyse site layout of housing and infrastructure</li> <li>→ Review relationships between sleeping, cooking, living and exterior spaces.</li> <li>→ Sketch plans of space usage, functionality of space and pros/cons in relation to community aspirations</li> <li>→ Interviews with formal and informal community. leaders to identify issues impacting on the design and construction and maintenance of housing. See Annex 2 for interview schedule.</li> <li>→ Interviews with representative range of households to identify aspirations for housing size, room layout, use of indoor-outdoor space, and specific needs of young people, the aged, single family and multi family dwellings. See Annex 3 for interview schedule.</li> </ul>
<i>Phase 6</i> Synthesis of case studies	<p>A draft case study will be written for each community. The similarities and differences across the three case studies will be analysed and, where appropriate, a synthesis developed to formulate a draft design system that encompasses housing and built environment options and principles for the selection of appropriate building materials and technologies.</p>
<i>Phase 7</i> Field validation	<p>A second visit will be made to each of the three case study communities. This will provide an opportunity to:</p> <ul style="list-style-type: none"> <li>→ Review the draft case studies that were prepared after Visit 1</li> <li>→ Conduct a community workshop to seek feedback on the draft design system.</li> </ul>
<i>Phase 8</i> Dissemination and capacity building	<p>The draft design system will be revised for presentation to a national workshop on indigenous housing design to facilitate dissemination and capacity building around the project outcomes.</p>

These eight phases of research are interdependent and, as a result, will not be undertaken in a rigid sequential manner the above listing might suggest. For example, the Phase 2 interviews with government officers, architects and especially community leaders for this Positioning Paper are also serving as ways of building trust and engagement with them, thus opening spaces for openness, commitment and offers of support for the case study field visits in Phases 5 and 7. Similarly, issues of regional and cultural difference between the three case study sites, together with matters of logistics and local events mean that the conduct of each case study will be tailored to maximise flexibility of approach and responsiveness of interviewees in each case. See section 2.3.1 for an example.

## 2.2 Case studies

This section provides an overview of the three case study communities, focusing on the history of the settlement, local housing needs and issues, and State/Territory housing policies and arrangements that impact upon the design and delivery of housing in the three communities.



### 2.2.1 Maningrida, Northern Territory

Maningrida is a self-governing indigenous community on the coast of the Arnhem Land region of the Northern Territory. Maningrida is located 500 km east of Darwin and 300 km north east of Jabiru. The name Maningrida is a version of the Kunibidji name *Manayingkarirra* and is derived from the phrase *Mane djang karirra*, which means “the place where the dreaming changed shape”. The Kunbidji people are the traditional landowners of this country. The other main groups who live in the area are Kunbarlang, Nakkara, Burarra, Gun-nartpa, Gurrgoni, Rembarrnga, Eastern Kunwinjku, Djinang, Wurlaki and Gupapuyngu. As Altman points out, the Maningrida region is linguistically and culturally diverse, with more than 10 distinct languages still in everyday usage in the region, besides Aboriginal English.<sup>34</sup>

Maningrida was suggested as a case study by staff in the Indigenous Housing Unit of the Northern Territory Department of Housing, Local Government and Sport because the housing located in the both town camps and the outstations characterises the two distinct modes of housing provision of remote Indigenous communities. The Maningrida Council (servicing a fluctuating population of 1500-2000 people) governs town camp housing while the Bawinanga Aboriginal Corporation (BAC) administers housing across 35 outstation communities (supporting approximately 800 people). Other important community authorities in the town include the Maningrida Jobs, Employment and Training (JET) Centre, the Maningrida Progress Association, and the "Maningrida Arts and Culture" artists' co-operative.

The township of Maningrida was established after World War II, when Welfare Branch officers were sent by the Northern Territory government to set up a trading post in the original missionary settlement. From 1957, the government allocated funds for the development of Maningrida as a central point to “sedentarise” the local population.<sup>35</sup> This assimilationist policy proved extremely costly – financially and socially - and was abandoned in 1972. With the establishment of the BAC in 1979, and before, many families and small groups returned to live in traditional homelands with minimal financial or infrastructure support from government. Government policy foresees a greater regionalisation of services that one day may integrate Bawinanga and Maningrida to become a larger regional council.

As in most remote indigenous communities in Australia, there is a chronic housing shortage and long housing waitlist and subsequent problems with overcrowding (estimated 15-20 people per 3 bedroom house). This overcrowding inevitably creates problematic environmental health issues which stretches the limited public health in the region. Additional housing funds were allocated through the NAHS-2 program in 2003 to help address the health issues resulting from overcrowding. The 2004-06 Indigenous Housing Authority of the Northern Territory (IHANT) housing program provided A\$1.6 million for construction of 4 new 3-bedroom houses together with upgrades renovations to existing community housing.<sup>36</sup>

Severe Tropical Cyclone Monica caused significant damage when it crossed the north Australian coast on April 24, 2006, just 35km west of Maningrida as a Category 5 cyclone. The uninhabited coastal crossing point suffered severe vegetation damage, with 50%-70% of all trees felled. The Council and people of Maningrida had responded well to cyclone warnings in previous days, and much preparation, including the clearing of loose materials, reduced the final damage toll. Nevertheless, Maningrida received

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<sup>34</sup> Altman, J. (2005) The governance of outstations in the Maningrida region, north-central ArnhemLand, and the challenges posed by the new arrangements. Unpublished paper prepared for CAEPR-Reconciliation Australia ICG Project Workshop, Darwin, 5 December.

<sup>35</sup> Scott, J. (1998) *Seeing Like a State: How Certain Schemes to Improve the human Condition have Failed*, Yale University Press, New Haven.

<sup>36</sup> In 2005-2006, the responsibilities of IHANT were gradually transferred to the Northern Territory Department of Housing, Local Government & Sport.

substantial damage. Several houses were destroyed, while around 75 percent of all buildings suffered some form of damage ranging from losing their roofs to minor damage caused by falling trees or branches. Over twenty core-filled concrete block houses had been constructed over the past three years (and had been designated cyclone shelters) were virtually completely untouched by Monica. The Council's insurance claim took a long time to be processed and did not cover at least four houses. In response, the Northern Territory government agreed to accelerate the next two year's funding to allow the construction of 6-8 new concrete block houses over the next year in addition to the four currently under construction. Meanwhile, the problem of overcrowding has been intensified and at least ten families are living in tent shelters.<sup>37</sup>

Despite housing shortages in the Maningrida region, the successful procurement and design of housing and the establishment of training programs for building using local labour through both Maningrida Council and the BAC in town and outstation areas, respectively, makes Maningrida an instructive case study for other remote Indigenous communities.

### 2.2.2 *Mimili, South Australia*

Mimili is an Anangu community on the Pitjantjatjara Lands in the north west of South Australia and is located in South Australia, approximately 70 km west of the Stuart Highway and 380 km south of Alice Springs on land that was once the Everard Park cattle station. The land was returned to the traditional owners in 1972, and the name reverted to the original name for the country in this area. Mimili is the site of the maku or witchetty grub dreaming. Community members have kinship ties over a large area of Central Australia, and many people have ownership status to specific areas of land in the region around Mimili.<sup>38</sup>

There are specific infrastructure issues affecting Mimili's sustainability involving affordable and reliable power generation and water supply, requiring the need for expanded bore drilling and sewerage reticulation from septic tanks and central storage ponds. Due to arid desert conditions including high summer temperatures and very cold winter nights, the diesel generators that power the community are kept running constantly at great economic cost to the community. Evaporative cooling needs in summer come at great cost to the water supply. And with the development of more infrastructure including housing designed for more urban and temperate climate conditions, sustainable energy and maintenance systems are increasingly challenged. Additionally, the demand on community resources fluctuates since the population is subject to change from people coming and going between communities.

The process for determining housing need in Mimili in relation to South Australian Office of Aboriginal Housing (OAH) processes is determined by the community through the development of yearly priorities that are submitted to the central Anangu Pitjantjatjara Yankunytjatjara (APY) Council in Umuwa for prioritisation of need against the other communities in the APY Lands (see section 3.7.2). New houses have, in the past, been implemented through the OAH and also through former federal funding through the NAHS scheme, managed by project managers, Parsons Brinckerhoff.

There has been a general concern that the Anangu have been kept from involvement in the planning of their houses in a meaningful way that is relevant to social and environmental needs; and that this has resulted in dysfunctional outcomes based upon standardised housing plans, exacerbated by poor quality fittings and fixtures. It has been reported to Lee and Morris that there have been few opportunities to design houses that would suit a variety of needs for families, the elderly and single men. Additionally, environmental concerns such as management of dust and noise that can be improved through coordinated design of housing site planning and landscaping, has

<sup>37</sup> *Maningrida Community News*, No. 23, 12 June 2006.

<sup>38</sup> <http://www.waru.org/communities/mimili/> (Accessed 18 August 2006).

only been possible through obtaining separate grants through special contracts, as the housing authorities have only focussed on house delivery.

There are a number of funding regimes for housing funding including: FaCSIA funding delivered through the OAH and the SA Housing Trust for the Community Housing Infrastructure Program (CHIP) and National Aboriginal Health Strategy (NAHS) funding that is funnelled through the State or directly through project management contract. Specialised housing for Health Services and educational staff is usually funded through the APY Land Council and AP Services and through individual communities variously applying for Federal grants for housing and community buildings.

### 2.2.3 Palm Island, Queensland

Situated approximately 65 kilometres north-east of Townsville in north-east Queensland, Palm Island and the surrounding group of 16 islands are the traditional country of the Malanbarra and Bwngcolman people. While Malanbarra are the traditional owners of the Islands, the Bwngcolman (Bukaman) are the descendents of the approximately 42 language groups<sup>39</sup> of Indigenous Australians who were re-settled on Palm Island in order to remove them from land that was desired for pastoral holdings. The Bwngcolman have been welcomed as guests to Manbarra country and live under Manbarra law.

Palm Island was established in 1918 under the *Aboriginals Protection and Restriction of the Sale of Opium Act 1897 (Queensland)* as a penal settlement to which Indigenous individuals and groups were sent from throughout the state. As such, it was a replacement for the Hull River Mission that was destroyed by a cyclone in 1918.<sup>40</sup>

During the "Protection Era"<sup>41</sup> when even the most mundane aspects of the daily lives of Indigenous people were controlled by government officers, Palm Island became an island of exile and punishment for Aboriginal people who did not comply with government policies and supervisors' rules.<sup>42</sup> As a result, since the 1920s, Palm Island has grown to be the largest of the government Aboriginal settlements. It has also housed a training centre and an old people's home while nearby Fantome Island (part of the Palm Island group) was an infectious diseases hospital and a regional holding centre for the mentally ill.

Up until the 1980s, the State government acted as guardian to the Palm Islander community, controlling many aspects of their lives and property. A Deed of Grant in Trust (DOGIT) was established in October 1986, giving the community increased self-determination through an elected Aboriginal council which was established to manage the affairs of the community.

The years of government control and the forcible relocation of discrete cultural groups to the Palm group of islands have left a legacy of entrenched social issues. High unemployment, overcrowded and inadequate housing, disproportionate food costs, poor diets and health, and a prevalence of alcohol abuse and associated violence are major concerns.

It is widely recognised that Palm Island has an extensive housing problem with serious overcrowding, a lack of appropriate housing, and extremely poor living conditions. The Queensland Department of Housing's Property Condition and Tenant Survey (PCATS) conducted on Palm Island in late 2005 identified 2078 people living in 321 social housing rental properties rented from the Palm Island Aboriginal Shire Council. These

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<sup>39</sup> <http://www.bwngcolmacoms.eq.edu.au?AboutBCS.htm> Accessed 10 August 2006).

<sup>40</sup> [http://www.austlii.edu.au/au/special/rsjproject/rsjlibrary/rciadid/individual/brm\\_vrr/4.html](http://www.austlii.edu.au/au/special/rsjproject/rsjlibrary/rciadid/individual/brm_vrr/4.html) (Accessed 10 August 2006).

<sup>41</sup> <http://www.abc.net.au/message/radio/awaye/stories/s285174.htm> (Accessed 27 July 2006).

<sup>42</sup> [http://www.austlii.edu.au/au/special/rsjproject/rsjlibrary/rciadid/individual/brm\\_vrr/4.html](http://www.austlii.edu.au/au/special/rsjproject/rsjlibrary/rciadid/individual/brm_vrr/4.html) (Accessed 10 August 2006).

figures do not include government owned properties for government employees such as teachers, nurses and police, who occupy these properties.

The Palm Island Shire Council allocated the housing budget that they had received from the State government in 2004 to the State Department of Public Works, and its agency, Project Services. Project Services were also contracted to expend the remaining 2003-2004 housing budget and the full 2004-2005 budget. However, Bwacolman Future Inc. indicates that most of these houses will not be finished until mid 2007<sup>43</sup>. At present Queensland Governments Project Services are experimenting with alternative systems for building, while QBuild is working through an extensive maintenance backlog and are keen to local onsite employment and to provide training opportunities.

The Queensland Department of Housing has established a number of projects, including the "Palm Island Tenant Participation Groups", a "Sustainable Tenancies Project" and a "Palm Island Tenancy Support Project" to build stronger bridges between the government, the Palm Island Aboriginal Shire Council and the local Indigenous community to facilitate ongoing planning and management of housing on Palm Island.

### **2.3 Case study protocols**

The research team has developed a set of protocols to guide its case study research. These are based upon protocols for research and consultation with Indigenous communities developed by AHURI<sup>44</sup> and by the Australian Institute for Aboriginal and Torres Strait Islander Studies<sup>45</sup> and as adapted by the University of South Australia<sup>46</sup>, one of the project partners. These include:

- Researchers should meet the needs and aspirations of Indigenous Australians and communities
- Researchers should involve Indigenous Australians in determining and defining the research
- Researchers procedures should facilitate input from Indigenous Australian individuals, families, groups and communities
- Researchers should take account of cultural and personal sensitivities and the right to refuse to participate
- Researchers should recognise Indigenous Australian community and expertise
- Researchers should ensure that relevant people receive the results of the research in an accessible and acceptable manner
- Researchers should ensure benefit to the community and promote employment of local people in research activity
- Researchers should facilitate collaborative research
- Researchers should respect Indigenous Australian cultural norms in relation to publication, the use of photographs and identification of individuals

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<sup>43</sup> *Ibid.*

<sup>44</sup> AHURI (nd) Ethical Principles and Guidelines for Indigenous Research. On-line at <http://oltfile.qut.edu.au/download.asp?rNum=603024&pNum=599344&fac=udf&OLTWebSiteID=SUPERVISORSOLUTIONS&dir=gen&CFID=5771096&CFTOKEN=11027522> (Accessed 2 July 2006)

<sup>45</sup> Australian Institute for Aboriginal and Torres Strait Islander Studies (2000) *Guidelines for Ethical Research in Indigenous Studies*. On-line at <http://ntru.aiatsis.gov.au/ifamp/practice/pdfs/AIATSISethicsGuideA4.pdf> (accessed 2 July 2006).

<sup>46</sup> <http://www.unisa.edu.au/res/ethics/indigenous.asp> (Accessed 3 July 2006).

→ Researchers should provide a mechanism to enable the negotiation of issues of ownership and control of research outcomes.<sup>47</sup>

The practical implications of these protocols were translated into five principles for best-practice consultation by Lee and Morris.<sup>48</sup> Summarised below are the five principles for effective cross-cultural and cross-disciplinary consultation and negotiation that support the research methodology for the case studies into the development of flexible practices for good design and implementation of built environment projects in remote areas.

*Engagement:* At the inception of projects, gain negotiated and mutual understanding of client, consultant and provider aspirations and adopt agreed protocols for communication between all parties

*Communication:* Arising from agreed consultation protocols, negotiate coordinated project design and implementation processes based upon local conditions and experience.

*Reciprocation:* Enable participatory and reciprocal relationship building between all parties, based upon mutual awareness of local physical, cultural and environmental conditions and available expertise. Allow sufficient time for communities to reach consensus

*Feedback:* Directly involve local clients in the evaluation of their built environments to include information gathering about physical and technical aspects and social and environmental factors.

*Continuity:* Develop effective communication systems that promote building ongoing cross-cultural and cross-disciplinary relationships, facilitated by well-maintained records and databases.

These principles were integrated into the research design with the research plan being approved by the Research Ethics Committees of the three participating universities, RMIT, University of South Australia and Queensland University of Technology.

They have also led to six practical steps to ensuring ethical and effective research practice in the field:

1. Intensive efforts are being made to build relationships with the case study communities and to negotiate the purpose of the study, access and field protocols with both formal and informal community leaders.
2. The Fixing Houses for Better Health (FHBH) policy of “no survey without service” is being followed, with efforts made to contribute to local projects in practical ways. For example, the Mimili research is being conducted alongside a “design-build” exercise by the University of South Australia researchers and involves the construction of building for single men’s quarters (see section 2.3.1). Researchers from RMIT and Queensland University of Technology are members of Architects Without Frontiers projects seeking to provide roofing repairs in Maningrida post-Cyclone Monica. They are also helping with the review of Palm Island town plan, the assessment of building proposals, and the design of a new town square for Palm Island.
3. Mixed-gender field research teams are being used to ensure respect for local knowledge systems.
4. Co-researchers recommended by formal and informal leaders are being employed in each community to guide and assist with data collection and analysis. For

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<sup>47</sup> For a detailed elaboration of further protocols for research with Indigenous people, also see Walker, R., Ballard, J. and Taylor, C. (2003) *Developing paradigms and discourses to establish more appropriate evaluation frameworks and indicators for housing programs*, AHURI Final Report No. 29, Appendix 3.

<sup>48</sup> Lee and Morris (2005) *op. cit.*

example, the environmental health officers in Maningrida who conduct six-monthly surveys have been engaged to assist with the case study fieldwork in Maningrida.

5. The validity of the research findings and interpretations and resultant design system and training materials will be monitored through processes for community feedback and triangulation. Thus, a minimum of two visits are planned for each field site, with the final visit being a workshop to seek local interpretations on the research findings and recommendations
6. Two members from each community will participate in an end-of-project workshop.

### 2.3.1 *Implimentation of protocols and principles in the Mimili case study*

The Mimili case study will be based on community engagement through the design and construction of a community building in line with the principle of “no survey without service”.

Interviews conducted by Lee and Morris with the Municipal Services Officer at Mimili in the APY Lands, the Aboriginal Housing Authority and Anangu Pitjantjatjara Services in 2002, identified the need for single men’s accommodation at Mimili. These interviews were part of an AHURI project on “Best Practice Models for Effective Consultation towards Improving Built Environment Outcomes for Remote Indigenous Communities”.<sup>49</sup> The need for single men’s accommodation at Mimili has been further supported by recent and on-going discussions with APY Services and the South Australian Office for Aboriginal Housing (OAH). It is proposed therefore, that the aims of the current project be achieved through engagement with the Mimili Community in the design and construction of single men’s accommodation by project partners, Lee and Morris, and students of the Louis Laybourne Smith School of Architecture and Design at University of South Australia. The South Australia Department of Families and Communities has agreed to fund the design and construction aspects of this work.

The research approach will involve:

#### 1. Engagement

- Gain negotiated understanding of the knowledge base and aspirations of clients, consultants, managers and providers.
- Establish strategies for mutual engagement by all parties involved with the design project including the Community, consultants, contractors and providers.
- Agree to consultation protocols with all participants.

#### 2. Communication

- Identify appropriate persons and groups to consult. These may include (but are not limited to): single men, community leaders, the broader Mimili community, Municipal Service Officer, Housing SA, APY Services.
- Gather relevant background information including the history of planning in the community, the siting of houses and infrastructure, strategies and location of the reticulation of services, and socio-demographic and economic factors affecting housing provision and need.
- Survey existing Community layout of housing, infrastructure and services in relation to consultation and negotiation about siting of single men’s accommodation. (*Here is an appropriate justification for a survey of the existing Community layout*).
- Identify building and landscape requirements and desired relationships between sleeping, cooking, living activities and the levels of shelter required for these activities. (*Here are opportunities for relatively non-invasive comparisons between the range of standard housing and the specific requirements for single men*).

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<sup>49</sup> Lee and Morris (2005) *op. cit.*

### 3. Reciprocity

- Initiate a participatory design process between clients, architects and service providers aimed at establishing the siting of the project and an initial sketch design through the exploration of siting and design options facilitated by employing graphic and physical modelling techniques. Such participatory design techniques include marking or pegging out the footprint of the building on various site options and creating representations of building design options using scale models.
- At the stage where a number of siting and design options have been explored it will be appropriate to allow the diverse family, gender and age groups in the community time to arrive at a consensus about a preferred siting and design option.
- Reconvene a participatory design process with all participants at a mutually agreed time, aimed at detailed design development of the agreed siting and design option including the determination of materials, hardware, fixed appliances, ablutions facilities, landscape, site works and infrastructure. *(This participatory process will inform the research aims of the current research (Purpose and Aims 1-5) and the explicit survey questions listed in Annex 2 and Annex 3 of the current Positioning Paper through comparisons between the standardised housing designs at Mimili (in which single men are currently accommodated) and the planning and design of the new single men's accommodation. These comparisons will legitimise questioning that could otherwise be an intrusive and disconnected investigation into matters unrelated to tangible outcomes. It will also involve community members in a design process which they are unlikely to have experienced, and which will provide the training and capacity building which the current research aims to achieve).*
- Undertake Contract Documentation of the detailed building design by the University of South Australia to establish basis for cost estimation and funding by Housing SA.
- Negotiate with all parties' arrangements for construction including involvement of members of the Mimili community in the construction process as a condition of the construction contract aimed at providing opportunities for skills transfer and training.
- Undertake joint University of South Australia and Mimili Community construction project. *(This collaboration will further provide opportunities to observe and understand issues affecting remote Indigenous housing design over a broad time frame).*

### 4. Feedback

- Undertake post occupancy evaluation of single men's accommodation in terms of physical, technical, social, cultural and environmental factors.
- Formulate an accessible post occupancy evaluation database for effective data resourcing for consultants, managers and providers.

### 5. Continuity

- Maintain effective cross-cultural and cross-disciplinary relationships through effective on-going communication systems reinforced by comprehensive records of all cross-cultural and cross-disciplinary consultation relating to built environment projects.

## 3 THE POLICY ENVIRONMENT

### 3.1 Introduction

The halfway point has now been reached since the Australian Housing Ministers' "Ten Year Statement of New Directions for Indigenous Housing" was agreed and published in 2001 as a policy titled *Building a Better Future: Indigenous Housing to 2010*<sup>50</sup>. This was a development from the 1999 *National Framework for the Design, Construction and Maintenance of Indigenous Housing* and provides the direction for Commonwealth and State/Territory government cooperation in the provision of Indigenous housing. Concurrent with these policy initiatives has been three phases of a National Aboriginal Health Strategy (NAHS), of which a major component is environmental health through improved housing, and the publication of three editions of *The National Indigenous Housing Guide* (NIHG).

This purpose of this chapter is to provide an overview of this policy context for Indigenous housing in Australia by briefly summarising the key elements of each of these documents and strategies. The chapter also discusses core shifts in policy making in this area, which have resulted from the abolition of the Aboriginal and Torres Strait Islander Commission (ATSIC) in 2004 and the mainstreaming of its responsibilities across a number of Commonwealth departments under the coordination of the Department of Family and Community Services and Indigenous Affairs (FaCSIA) in 2004/2005.

This serves as a background to a review of the housing policies for the Northern Territory, Queensland and South Australia where the three case study communities of Maningrida, Palm Island and Mimili, respectively, are located.

### 3.2 National Framework for the Design, Construction and Maintenance of Indigenous Housing (1999)

The *National Framework for the Design, Construction and Maintenance of Indigenous Housing*<sup>51</sup> (NFDCMIH) was developed in 1999 by the Commonwealth, State and Territory Housing Ministers' Working Group on Indigenous Housing, under the leadership of the-then Minister for Family and Community Affairs, Jocelyn Newman. The stated aim of the NFDCMIH was to build on existing research on Indigenous housing to achieve better housing and health outcomes for Indigenous Australians.

The intention of the NFDCMIH was to make a direct connection between housing design, construction and maintenance, and the nine healthy living practices that are the basis of the HealthHabitat methodology discussed in section 5.1.2. The NFDCMIH had four major components, which sought to provide guidance for the environmental health, construction and maintenance of Indigenous housing. These elements included:

- *Principles of safety, health, quality control and sustainability* to guide Indigenous people in designing, building, upgrading and maintaining Indigenous housing.
- *State and Territory remote area building standards* were seen to be an integral part of implementing the national framework. The State and Territory remote area building standards were also intended to be used in conjunction with other building guidelines such as the Building Code of Australia, Australian Standards, State and Territory environmental health, building and planning legislation and local government building regulations.

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<sup>50</sup> Housing Ministers Advisory Council (2001) *op. cit.*

<sup>51</sup> Commonwealth, State and Territory Housing Ministers' Working Group on Indigenous Housing (1999) *op. cit.*



- The *National Indigenous Housing Guide* (NIHG) was developed as a tool to assist in the design, construction and maintenance of houses. The Guide was not intended to deal with all housing design and construction issues but rather focused on the health hardware components essential for safe, healthy and sustainable housing. The Guide was also designed to be used in conjunction with State and Territory remote area building standards (see section 3.4).
- *Reviewing the National Framework* on a regular basis was critical in ensuring that the framework delivered the intended outcomes of safe, healthy and sustainable housing for Indigenous people. It was also seen an important that Commonwealth, State and Territory governments shared responsibility for monitoring the quality of new and upgraded houses.

In committing to this framework, Commonwealth, State and Territory officials and representatives from State and Territory Indigenous housing boards and other relevant agencies agreed to “workshop” and review the national framework every two years. The purpose of such reviews was to assist in maintaining a national focus on improving the design, construction and maintenance of Aboriginal and Torres Strait Islander housing.

### 3.3 Building a Better Future (2001)

In May 2001, a meeting of Commonwealth, State and Territory Housing Ministers adopted a new policy of “safe, healthy and sustainable housing for Indigenous Australians”. This new policy was outlined in the ten-year statement *Building a Better Future: Indigenous Housing to 2010*<sup>52</sup>, which was designed to provide better housing and housing-related infrastructure and improved environmental health outcomes for Indigenous people. At that meeting it was also agreed to establish a Standing Committee on Indigenous Housing (SCIH) to oversee the implementation of the recommendations in and report to the Housing Ministers' Advisory Council (HMAC).

*Building a Better Future* provided a framework of priorities, objectives, desired outcomes and implementation strategies for achieving sustained improvements in Indigenous housing until 2010. As one AHURI project suggests *Building a Better Future* “represents a significant commitment by Commonwealth, State and Territory Housing Ministers and the Minister for Reconciliation and Aboriginal and Torres Strait Islander Affairs (Commonwealth), to a national effort to making a real difference to Indigenous housing and environmental health outcomes”.<sup>53</sup>

Four objectives were endorsed as part of the housing framework in *Building a Better Future* to achieve its ambitious objectives including: (i) identifying and addressing the unmet needs of Indigenous people; (ii) improving the capacity of Indigenous Community Housing Organisations (ICHO's) and involving Indigenous people in planning and service delivery; (iii) achieving safe, healthy and sustainable housing; and (iv) improved coordination of program administration.

The ‘Vision’ of *Building a Better Future* is that:

- Aboriginal and Torres Strait Islander people throughout Australia will have access to affordable and appropriate housing which contributes to their health and well being, and access to housing which is safe, well designed and appropriately maintained.
- There will be a vigorous and sustainable Indigenous community housing sector, operating in partnership with the Commonwealth and State, Territory and Local Governments.

<sup>52</sup> HMAC. Standing Committee on Indigenous Housing (2001) *op. cit.*

<sup>53</sup> Cooper, L. et al (2005) *Indigenous Housing Need and Mainstream Public Housing Access and Sustainability Responses*, Australian Social Policy Conference, University of New South Wales, 20-22 July, p. 9.

- Indigenous housing policies and programs will be developed and administered in consultation and cooperation with Indigenous communities and with respect for Aboriginal and Torres Strait Islander cultures.

The new directions for Indigenous housing incorporated into *Building a Better Future* included the following desired outcomes:

1. *Better housing*: Housing that meets agreed standards, is appropriate to the needs of Aboriginal and Torres Strait Islander people, and contributes to their health and wellbeing
2. *Better housing services*: Services that are well managed and sustainable
3. *More housing*: Growth in the number of houses to address both the backlog of Indigenous housing need and emerging needs of a growing Indigenous population
4. *Improved partnerships*: Ensuring Indigenous people are fully involved in planning, decision making and delivery of services
5. *Greater effectiveness and efficiency*: Ensuring that assistance is properly directed to meeting objectives, and that resources are being used to best advantage
6. *Improved performance linked to accountability*: Program performance reporting based on national data collection systems and good information management
7. *Coordination of services*: A whole-of-government approach that ensures greater coordination of housing and housing-related services linked to improved health and wellbeing outcomes.

These seven outcomes are reflective of the kind of extended design framework that this project seeks to develop. Indeed, achieving these outcomes will be difficult without attention to the multi-faceted nature of design.

A National Reporting Framework (NRF) for Indigenous Housing was developed to provide a framework for reporting across all Indigenous housing programs and on the implementation and outcomes of *Building a Better Future*. Developed and approved by all States and Territories and the Commonwealth, and mapped to the seven outcome areas identified in *Building a Better Future*, the National Reporting Framework comprises a set of 38 performance indicators for national reporting on Indigenous housing. The Australian Institute for Health and Welfare in conjunction with the Australian Bureau of Statistics publishes an annual report on these indicators.<sup>54</sup> In addition, an evaluation framework to assess the implementation and outcomes of *Building a Better Future* was developed to inform a mid-term review in 2005, and the final review due in 2010.<sup>55</sup>

Adoption of the principles and reporting framework for *Building a Better Future* is now a core condition in the housing related conditions of the Bilateral Agreements that the Commonwealth is signing with all States and Territories for the management of Indigenous affairs.

### **3.4 National Indigenous Housing Guide (1999, 2002, 2006)**

As a provision of the *National Framework for the Design, Construction and Maintenance of Indigenous Housing* (NFDCMIH), a *National Indigenous Housing Guide* (NIHG)<sup>56</sup> has been developed, and regularly revised, to provide minimum

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<sup>54</sup> Australian Institute for Health and Welfare (AIHW) (2005) *Indigenous Housing Indicators 2003–04*. AIHW cat. no. HOU 127 (Indigenous Housing Series no. 1), AIHW Canberra.

<sup>55</sup> Rogers, P. et al. (2005) *Framework for Evaluating Building a Better Future: Indigenous Housing to 2010* Volume 1,2 &3: Proposed Evaluation Framework. Prepared for AHURI, NATSEM-RMIT Research Centre, Melbourne.

<sup>56</sup> *National Indigenous Housing Guide* (1999) HealthHabitat for the Commonwealth, State and Territory Ministers' Working Group on Indigenous Housing, Canberra.

standards and guidelines in the design, construction and maintenance of housing for Aboriginal and Torres Strait Islander peoples.

The NIHG distinguishes between design features that are critical for safety and health, and others that would improve house functionality, amenity and cost effectiveness. The guide is also informed by the National Framework principles of safety, health, quality control and sustainability. These include:

1. Houses for Aboriginal and Torres Strait Islander peoples will be designed, constructed and maintained for safety.
2. Houses will be designed, constructed and maintained to support Healthy Living Practices.
3. Quality control measures will be adopted in the design, construction and maintenance of houses.
4. Houses will be designed and constructed for long-term function, and ease and economy of maintenance.

The guide provides practical advice on the design, selection, installation, construction and maintenance of "health hardware" in houses and other aspects of environmental health, such as dealing with dust, insects and dogs. It was intended as a practical resource for people involved in providing housing to Indigenous people, including community councils, Indigenous housing workers, council chief executive officers, architects, project managers, tradespeople and government officials.

The *NIHG* covers a series of key elements for ensuring that safety and health issues are incorporated into the design and construction of Indigenous housing. These include designing for:

- electrical, gas, structural and fire safety
- washing people
- washing clothes and bedding
- removing waste
- improving nutrition
- reducing crowding
- reducing negative contact between people and animals
- reducing dust
- controlling the temperature of the living environment
- reducing trauma from broken glass and burns from hot water.

The effectiveness of the NIHG was one of the questions discussed in interviews with architects and Government agencies involved in the design and construction of Indigenous housing, in Phase 2 of this project. Nearly all interviewees agreed on the critical need for the NIHG because of the need to provide basic environmental health guidelines for the design and construction of Indigenous housing. Comments about the NIHG from the Northern Territory government included:

I suppose on that level where you have to incorporate the nuts and bolts and hardware, in terms of the guidance that it gives about the sorts of materials and the kind of levels that we need to be looking at, it's a useful guide.<sup>57</sup>

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<sup>57</sup> Interview, 12 June 2006.

We have certainly incorporated the NIHG into our new standard designs and we have included a lot of the principals in our maintenance surveys. So you would have to say that we find them useful as well.<sup>58</sup>

However, several architects who were interviewed were less enthusiastic about the NIHG claiming that “It tries to be everything for everyone”.<sup>59</sup> Nevertheless, the widespread application of the NIHG had led to substantial health and housing benefits and improvements in the design of Indigenous housing.<sup>60</sup>

### 3.5 The National Aboriginal Health Strategy

The NAHS strategy was developed from an agreement by Commonwealth, State and Territory Ministers for Health and Aboriginal Affairs in December 1987 to develop a National Aboriginal Health Strategy (NAHS). In June 1990, the Ministers agreed on cooperative arrangements between Commonwealth, State/Territory governments and Aboriginal and Torres Strait Islander organizations, and in December that year, the Commonwealth Government approved provisional funding for NAHS. In December 1991 the Commonwealth confirmed funding to 30 June 1995, which has been renewed on two occasions since.

The strategy was intended to supplement State and Territory government funding by providing essential services, community infrastructure and priority housing to improve primary healthcare services and environmental health conditions in Indigenous communities. The strategy has two primary areas of focus, primary health and environmental health. NAHS was originally developed as a component of the CHIP program<sup>61</sup> but was seen as a larger nationally targeted capital program that had housing and infrastructure and regional services attached to it, as well.

The environmental health focus of NAHS was designed to target acute housing and infrastructure needs in Indigenous communities, and served primarily as a construction program for ATSIC. However, NAHS provided only a proportion of total Indigenous housing needs, with other funds being provided under the Commonwealth State Housing Agreements (CSHAs) and through ATSIC Regional Councils. Within the strategy, capital funding for housing and related infrastructure (power, water, sewerage, drainage and dust control) was allocated to improve environmental living conditions, generally to rural and remote Aboriginal and Torres Strait Islander communities. The scheme was administered on a state-wide basis by external program managers (such as Arup) who have construction management and engineering expertise.

After the first five-year program, ATSIC allocated significant funds for NAHS housing projects between 1995-2003, including:

- \$60 million to NAHS/HIPP Round 1 for 1995-96 to 1998-99;
- \$218 million to NAHS for 1996-97 to 1999-2000;
- \$80 million to NAHS/HIPP Round 2 for 1996-97 to 1999-2000; and

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<sup>58</sup> Interview, 12 June 2006.

<sup>59</sup> Interview, 29 June 2006.

<sup>60</sup> SGS Economics and Planning (SGS) and Tallegalla Consultants (2006) *Evaluation of the Fixing Houses for Better Health (FHBH) Projects: Final Report*. Report prepared for the Australian Government Department of Families, Community Services and Indigenous Affairs (FaCSIA).

<sup>61</sup> The former ATSIC CHIP transferred to the Department of Family and Community Services (FaCS) on 1 July 2004. The CHIP budget was spread across a number of elements including housing and infrastructure.

→ \$196 million to NAHS for 2000-2001 to 2002-2003.<sup>62</sup>

### 3.6 From ATSIC to FaCSIA

The Aboriginal and Torres Strait Islander Commission (ATSIC) was formed in 1990 “to increase the empowerment and self-determination of Indigenous Australians”<sup>63</sup> and signaled a renewed and determined focus within the-then Federal Labor government, in improving Indigenous well-being. The Commission (ATSIC) combined both representative and executive roles, through a network of regional councils and a national board elected by Indigenous people, which took over the programmatic functions of both the (then) Department of Aboriginal Affairs and Aboriginal Development Commission. The establishment of ATSIC was seen as “giving teeth to Indigenous group recognition, in line with the decolonising values of group self-government and self-determination, while also paying attention to that other important governmental value of accountability to the larger Australian public”.<sup>64</sup> The Commonwealth-State Working Group on Indigenous Housing, consisting of senior officials from FaCSIA, ATSIC, and State and Territory Housing agencies, was also established at this time to develop practical strategies to overcome the impediments identified by Ministers.

After just over a decade of significant achievement, as well as errors, delayed programs, controversy and political turmoil, a new executive agency, the Aboriginal and Torres Strait Islander Service (ATSIS), was established to administer ATSIC’s programs and make decisions about grants and other funding to Indigenous organisations from 1 July 2003. This was in response to perceptions of poor management within ATSIC’s existing structure, and in particular the perceived potential for conflicts of interest in decision-making over ATSIC funding. Then, in 2004, ATSIC was abolished altogether and more than one billion dollars worth of former ATSIC/ATSIS programs and 1300 staff were “mainstreamed” across Australian government agencies.

The department given primary responsibility for Indigenous Affairs was a restructured and expanded Department of Family and Community Services and Indigenous Affairs (FaCSIA). FaCSIA<sup>65</sup> currently provides a wide range of housing support services to Indigenous people through both mainstream and specific programs. It also provides income support, payments for the unemployed, disabled, youth, families and the aged delivered directly by Centrelink; employment assistance for people with a disability; and a range of other programs and services delivered through state and territory governments and assistance to the homeless and childcare. However, the aim of FaCSIA and mainstreaming is to deliver services to Indigenous Australians by coordinating program delivery across all relevant Commonwealth departments in cooperation with Indigenous communities and State/Territory government departments. In addition, a Ministerial Taskforce on Indigenous Affairs was established as well as a new advisory body of Indigenous people, the National Indigenous Council (NIC), and a network of 29 regional Indigenous Coordination Centres (ICCs) were established.<sup>66</sup>

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<sup>62</sup> See

[www.anao.gov.au/WebSite.nsf/Publications/4A256AE90015F69B4A256904001ADE03#1.%20Background](http://www.anao.gov.au/WebSite.nsf/Publications/4A256AE90015F69B4A256904001ADE03#1.%20Background) (accessed 6 August 2006).

<sup>63</sup> [www.aph.gov.au/library/pubs/CIB/2004-05/05cib04.htm#establish](http://www.aph.gov.au/library/pubs/CIB/2004-05/05cib04.htm#establish) (accessed 6 August 2006).

<sup>64</sup> Sanders, W. (1994) Reconciling public accountability and Aboriginal self-determination/self-management: Is ATSIC succeeding?, *Australian Journal of Public Administration*, 54 (4), pp. 475-488.

<sup>65</sup> See [www.facs.gov.au/](http://www.facs.gov.au/)

<sup>66</sup> See Gray, W. and Sanders, W. (2006) *Views From the Top of the “Quiet” Revolution: Secretarial Perspectives on the New Arrangements in Indigenous Affairs*, CAEPR Discussion Paper Series no: 282/2006 ANU, Canberra. See also Secretaries’ Group on Indigenous Affairs (2005) *Annual Report on Indigenous Affairs, 2004-05*, Office of Indigenous Policy Coordination, Department of Immigration and Multicultural and Indigenous Affairs.

The Standing Council on Indigenous Housing (SCIH) continues to exist and includes representatives from FaCSIA, the state/territory governments, AIHW and AHURI – it has a housing specific focus and provides advice to HMC through HMAc on Indigenous housing issues. Prior to this restructuring, a most significant mechanism for addressing Indigenous disadvantage was established in 2004 by the Council of Australian Governments (COAG). This was the *National Framework of Principles for Government Service Delivery to Indigenous Australians* which focuses on principles of: sharing responsibility, harnessing the mainstream, streamlining service delivery, establishing transparency and accountability, developing a learning framework, and focussing on priority areas.<sup>67</sup>

### **3.7 Indigenous housing policy in the three case study areas**

#### **3.7.1 Northern Territory**

##### **The policy context**

Indigenous people make up almost 30% of the Northern Territory's population compared to 2.2% nationally. Of the 60,000 Indigenous people in the Northern Territory, over 70% live in remote areas. This contrasts greatly with the situation in the rest of Australia where, on average, 70% of Indigenous people live in major cities or provincial centres.<sup>68</sup> The Northern Territory's Indigenous population increased by 27% between the 1991 and 2001 Census while the number of Indigenous families increased by 25%. These patterns make remote Indigenous housing a policy priority for the Northern Territory government.

At the 2001 census, there were nine Aboriginal communities with a population over 1,000 and 2,000, with Maningrida and Wadeye being home to over 2,000 people. There are around fifty communities with 200 to 1000 people. In addition there are some 570 widely dispersed outstations with populations consisting mainly of small family groups. Housing conditions vary greatly across this settlement hierarchy from newly constructed 3 and 4 bedroom homes to makeshift shelters.<sup>69</sup>

Residents of these communities experience overcrowding, long waiting lists, inadequate infrastructure and services, and maintenance backlogs. For example, the Northern Territory has the highest rate of overcrowding in Australia, thus placing enormous stress on the dwelling, particularly health and sanitation facilities. This has resulted in more than a third of existing houses requiring major repair or renovation.<sup>70</sup>

##### **The policy approach**

In April 2005, the Australian and Northern Territory governments signed an Overarching Agreement on Indigenous Affairs that sets the framework for more specific Bi-lateral Agreements to be negotiated. One of the first Bilateral Agreements to come out of this process was the *Indigenous Housing and Infrastructure Agreement 2005-2008*, which was signed in December 2005. This agreement provided for the pooling of Northern Territory and Australian government funds and programs, and delivery of all housing programs by the NT government. This has seen the integration of the housing component of the NAHS and the Indigenous Housing Authority of the Northern Territory into the Northern Territory Indigenous Housing Program (NTIHP).<sup>71</sup> Under

<sup>67</sup> See [www.coag.gov.au/meetings/250604/#attachment b](http://www.coag.gov.au/meetings/250604/#attachment%20b) (accessed 27 July 2006).

<sup>68</sup> Australian Bureau of Statistics (2003) *Population Characteristics: Aboriginal and Torres Strait Islander Australians, Australia, 2001*, cat. no. 3238.0, ABS, Canberra.

<sup>69</sup> Taylor, J. (2003) *Indigenous Economic Futures in the Northern Territory: The Demographic and Socioeconomic Background*, Discussion Paper 246, Centre for Aboriginal Economic Policy Research, ANU.

<sup>70</sup> [http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/indigenous\\_environment](http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/indigenous_environment) (accessed 3 August 2006).

<sup>71</sup> [http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/ind\\_housing\\_prog](http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/ind_housing_prog) (accessed 3 August 2006).

these new pooled arrangements and through the NTIHP, the government aims to increase the access for Indigenous people to affordable and appropriate housing, improve the management (maintenance and repair) of housing and promote employment and training for Indigenous people in housing management and construction in Indigenous communities.

As a result, from 1 July 2006, the Northern Territory government has been responsible for delivery of housing and housing infrastructure related components of the following Australian Government funding programs:

- Aboriginal Rental Housing Program (ARHP)
- Components of the Community Housing and Infrastructure Program (CHIP) including:
  - National Aboriginal Health Strategy (NAHS) housing and housing related infrastructure; and
  - Healthy Indigenous Housing Initiative (HIHI), Indigenous Community Housing Organisation (ICHO) governance component

The overall policy aims include:

- *Improved effectiveness in the coordination of services* by streamlining and coordinating of housing delivery services, planning and management by using a whole of government approach, ensuring a more efficient provision of housing;
- *Better housing* by ensuring design, construction and materials used are safe, functional, sustainable and culturally appropriate;
- *Better housing services* that are well managed and sustainable, resulting in streamlined housing management processes improving client outcomes and creating a financially viable and skilled Indigenous housing sector;
- *More housing* to address both the backlog and emerging housing needs, ensuring minimum standards are maintained, whilst also promoting the opportunities for home ownership in Indigenous communities by developing new incentives;
- *Improved consultation* arrangements for ensuring Indigenous people are involved in all facets of the delivery of the housing program
- *Improved training* to facilitate the employment of Indigenous people in all aspects of Indigenous housing, infrastructure and essential services; and
- *Improved performance* linked to accountability by clearly defining program performance through improved data collection and setting targets in accordance with a National Reporting Framework.<sup>72</sup>

Standardized housing designs are being encouraged by the Northern Territory government to improve the appropriateness of housing and reduce the costs of materials and construction. Prominent architects such as Simon Scally of Build Up Design, Paul Pholeros of HealthHabitat and David Donald from Tangentyere Design, were commissioned to undertake this design work. However, many of the architects interviewed for this study argue that the environmental and cultural differences across the Top End and between Top End and central Australian communities cannot be accommodated within a single house design or even a range of standard designs. They also question the claims of cost reductions through standard designs due to the additional external transport and labour costs involved in constructing standardized houses in remote areas.

One of the key policy initiatives of the NAHS program was the appointment of project management firms such as Arup and GHD to manage the procurement and delivery of

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<sup>72</sup> [http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/ind\\_housing\\_prog](http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/ind_housing_prog) (accessed 3 August 2006).

Indigenous housing in the Northern Territory over the last 10 years. However, such firms tend to deal only with large-scale housing provision in large centres, leaving the design and construction of housing in smaller centres and outstations to Indigenous Community Housing Organisations (ICHOs) who may contract design offices such as Build Up Design.

### **Community level arrangements**

In line with the requirements of *Building a Better Future*, an Indigenous Housing Needs Measurement Model is used to identify housing requirements of each community, with a goal of 1.8 persons per bedroom. Data is stored in the Community Information Access System (CIAS) of the NT government for each community. The CIAS also stores information on the numbers and types of dwellings in a community, past and present populations, funding received, and general information such as the condition of access roads.

The Indigenous Housing Branch of the NT Department of Local Government, Housing and Sport (DLGHS) provides funding to ICHOs to assist in addressing housing needs in their communities. Working in cooperation with ICHOs and the NT Department of Planning and Infrastructure (DPI), provides capital grants under the Northern Territory Indigenous Housing Construction Program (NTIHCP). Where the ICHO has the skills and resources, the design, construction, renovations and upgrades of housing is undertaken by them, otherwise DPI is responsible. Funding is also available through a NT government Housing Management Program which funds ICHOs to undertake housing management activities as well as repairs and maintenance.

There is a strong commitment to providing employment and training opportunities for Indigenous people through all Indigenous housing programs, with a particular focus on construction and maintenance. Many communities employ community members in local Indigenous Building Teams. This proves more cost effective for ICHOs and minimizes the reliance on outside contractors when repairs and routine maintenance is required on community houses.<sup>73</sup>

### **3.7.2 South Australia**

#### **The policy context**

The Indigenous population of South Australia was recorded in 2001 at 25,620, with an estimated population growth of almost 3 percent per year over the previous ten years. Twenty percent live in remote parts of the state and almost half live in the Anangu Pitjantjatjara Yankunytjatjara Lands (APY) Lands of central Australia. The population is generally younger with a median age of 20.8 years with more than a third under 15 years and only 10% over 55 years.<sup>74</sup>

Of the eighteen major Aboriginal communities in South Australia, the APY Lands cover some 103,000 square kilometers in the far north-west of South Australia with an estimated population of 2,600. The Lands are defined and protected under the *Pitjantjatjara Lands Right (PLR) Act (SA) 1981*. The AP Lands are part of a much larger country of Ngaanyatjarra, Pitjantjatjara and Yankunytjatjara (NPY) comprising South Australia, Western Australia and the Northern Territory, known as the "cross border" region. Communities in the cross border region are very mobile and share strong language and cultural ties that operate irrespective of State borders. Mimili is one of the nine communities of the APY Lands, an area that is regarded by the Commonwealth as very remote.

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<sup>73</sup> <http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/ntihcp> (accessed 3 November 2005).

<sup>74</sup> 2001 Australian Bureau of Statistics Census of Population and Housing figures reported in the Bilateral Agreement Framework Document, Overarching Agreement on Indigenous Affairs between The Commonwealth of Australia and the State of South Australia. On-line at [www.oipc.gov.au/publications/PDF/SA\\_IndigAgreement.pdf](http://www.oipc.gov.au/publications/PDF/SA_IndigAgreement.pdf) (accessed 3 November 2005).



Ongoing concerns that conditions on the APY Lands continue to deteriorate has led to significant changes in the governance arrangements on the APY Lands leading to the recent development in 2005 of a whole-of-government approach through State-Commonwealth-Anangu partnerships, and a Council of Australian Governments' (COAG) Trial project. Key priorities include improved: governance, provision of services, health and wellbeing, safety in all communities, environmental and community amenity, education and infrastructure including housing and services.<sup>75</sup>

### **The policy approach**

In April 2006, a Bilateral Agreement, *Framework Document, Overarching Agreement on Indigenous Affairs between The Commonwealth of Australia and the State of South Australia* (November 2005) was signed with a stated purpose that the five-year agreement aims to enhance the health and welfare of Indigenous South Australians. The agreement includes planned action in the areas of "safer communities; housing and infrastructure; health and education; homelessness; economic development; land, environment and culture; and service delivery".<sup>76</sup> Its purpose is to enhance cooperation between the two governments in service delivery, including an overhaul of processes. The agreement is also designed to reduce bureaucratic overlap and service duplication in Indigenous communities. An agreed priority area for housing and infrastructure states:

The key focus will be on streamlining the delivery of infrastructure programs to Indigenous people in South Australia, examining options to address jurisdictional overlap and rationalising government interaction in relation to housing and infrastructure.<sup>77</sup>

Additionally, the COAG *National Framework of Principles for Delivering Services to Indigenous Australians*, while not directly referencing housing, also focuses on developing cooperative approaches on policy and service delivery between agencies and building partnerships with Indigenous communities while recognising the need for services to take account of local circumstances. A priority issue related to improving housing and built environment conditions is the principle to promote effective environmental health systems and functional and resilient families and communities, supported by appropriate consultations and negotiations with local representatives of Indigenous communities.<sup>78</sup>

The Anangu Pitjantjatjara Lands COAG Trial Site is one of the 10 regions participating in this whole-of-government initiative for the provision of programs and services to Indigenous Australians. A Shared Responsibility Agreement (SRA) between the government and the Indigenous communities is under negotiation which is intended to be "driven by community priorities and provide a mechanism to deliver services with much more flexibility to tailor to community needs than has been used in the past".

In April 2005 a regional forum was established to seek to improve the poor living conditions on the APY Lands. The Tjungungku Kuranyukutu Palyantjaku (TKP) (Working Together for the Future) Regional Forum consists of representatives from Commonwealth and South Australian Governments as well as Anangu leaders from regional service delivery organisations on the Lands. Acknowledging the importance of better communication and access to services needed across the APY Lands one immediate outcome has been the appointment of Service Coordinators be hands on

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<sup>75</sup> [http://www.premcab.sa.gov.au/dpc/publications\\_apy\\_lands.html](http://www.premcab.sa.gov.au/dpc/publications_apy_lands.html) (accessed 3 November 2005)

<sup>76</sup> <http://www.atns.net.au/biogs/A002967b.htm> (accessed 3 November 2005)

<sup>77</sup> *Framework Document, Overarching Agreement on Indigenous Affairs* [www.oipc.gov.au/publications/PDF/SA\\_IndigAgreement.pdf](http://www.oipc.gov.au/publications/PDF/SA_IndigAgreement.pdf) (accessed 3 November 2005) p. 3.

<sup>78</sup> [http://www.oipc.gov.au/About\\_OIPC/Indigenous\\_Affairs\\_Arrangements/10coag.asp](http://www.oipc.gov.au/About_OIPC/Indigenous_Affairs_Arrangements/10coag.asp) (accessed 3 November 2005)

people to work with Government's and Anangu to improve the living conditions on the Lands through improved service provision, including housing.

The management and delivery of services and funding to Aboriginal communities at a State level has also seen the development of new plans and government structures over the past two years. The recently reorganised Aboriginal Affairs and Reconciliation Division and the State's housing agencies under the SA Department for Families and Communities (DFC) share the major policy responsibility for housing and infrastructure delivery in South Australia. The March 2005 Housing Plan for South Australia charges the Office for Aboriginal Housing (OAH), formerly the Aboriginal Housing Authority (AHA), with the responsibility for the "planning, coordination, service delivery and evaluation of housing for Aboriginal people" in the State.<sup>79</sup> Objective 3 Housing and Services for Aboriginal South Australians and Objective 5 Environmental Sustainability are the pertinent policy directions for the improved design and delivery of good housing and infrastructure in the State.

Objective 3 seeks to drive systemic change throughout all housing agencies to improve outcomes, alongside expanding services available to families and communities. A priority action is to increase the supply of larger properties and special accommodation for elders, singles and youth to reflect the changing dynamics and needs of Aboriginal people. Supporting the Fixing Houses for Better Health program is also a priority, although no specific mention is made regarding improving design standards or sustainable building and living systems beyond the actions included in Objective 5 in the development of new standards for energy efficient design and systems.

#### **Community level arrangements**

The APY Lands and the Mimili community are categorised as very remote. This exacerbates the issues facing remote area communities that include: inadequate and poorly maintained infrastructure and access to clean water, safe food and adequate sanitation. For example, the APY Land communities' main drinking water supplies are sourced from bores that can fail testing for contamination and equipment breakdowns and supply shortages particularly in sewerage systems are common, causing stress on the health and wellbeing of the people, particularly the aged and the very young. Overcrowding and a lack of good, functional housing is common and many of the extant houses suffers from construction and design problems, leading to housing failure resulting in the need for temporary housing with friends or relatives. The resultant overcrowding causes increased stress on infrastructure.<sup>80</sup>

Building and infrastructure programs in the Mimili community are undertaken jointly by the State managed OAH and through NAHS funding managed by project managers Parsons Brinckerhoff in the provision of new housing and infrastructure; although currently these arrangements are under negotiation, particularly with the adoption of the new Bilateral Agreement and associated funding regimes. The management of repairs and maintenance of housing and infrastructure, and the development and implementation of special built environment projects such as landscaping and special accommodation and community buildings is usually managed by through the AP Services function of the APY Lands Council. This facility is located in Umuwa, the central service centre built in 1991 to house the administration and services infrastructure. AP Services is a separately incorporated body, which looks after roads, housing, and other essential services.

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<sup>79</sup> Government of South Australia (2005) *Housing Plan for South Australia*, March.

<sup>80</sup> Australian Institute of Health and Welfare (2004) *Housing and Infrastructure*. On-line at <http://www.aihw.gov.au/indigenous/community/housing.cfm> (Accessed 3 August 2006).

### 3.7.3 Queensland

#### The policy context

Queensland is home to 27 percent of Australia's Aboriginal and Torres Strait Islander people, with 3.5 percent of the state's population identifying as Aboriginal or Torres Strait Islander.<sup>81</sup> An estimated 25 percent of Indigenous Queenslanders live in major cities, 51 percent in regional areas and 24 percent in remote or very remote areas, including 13 percent living in Aboriginal Deed of Grant in Trust (DOGIT) communities and Aurukun and Mornington Island Shires. Palm Island has the largest resident population of any Indigenous Local Government Area in Queensland with 2,378 persons, slightly more than that of Yarrabah (2,322 persons).<sup>82</sup> Palm Island's population increased by an average of 36 people annually in the five years to 2001.

*Queensland in Review 2003* reports that many Indigenous people in Queensland experience housing conditions significantly different to the State average.<sup>83</sup> Indeed, the Australian Bureau of Statistics reports that, in 2002, 36 percent of Indigenous people stated that they were living in a dwelling that had structural problems (29 percent in non-remote areas and 55 percent in remote areas).<sup>84</sup> Overcrowding was also very prevalent in remote areas, with 44 percent of people living in dwellings that required at least one more bedroom. This contrasts with the 20 percent of people in non-remote areas living in similarly overcrowded conditions.<sup>85</sup>

The Queensland Government Aboriginal and Torres Strait Islander Housing Department acknowledge the high levels of Indigenous housing needs and the impact of housing conditions on their health and addressing these issues is a high priority for the Department of Housing.

#### The policy approach

A bilateral agreement, CHSA 2003 – 2008, between the Australian Federal Government and the State of Queensland was signed in July 2005. This Agreement was made pursuant to the *Housing Assistance Act 1996* (Cth) and was designed to set out directions for the delivery of housing assistance in Queensland with a focus on key areas of strategic interest to both parties. This Agreement complements the arrangements set out in the Indigenous Housing and Infrastructure Agreements. Indigenous people will continue to receive housing and infrastructure assistance under the terms of this Agreement, including public and community housing, housing provided through Aboriginal and Torres Strait Islander Housing and private housing assistance.<sup>86</sup>

Queensland acknowledges the Council of Australian Government (COAG) resolution regarding the reduction of Indigenous disadvantage through the improvement of government program performance. As such, Queensland is committed to implementing initiatives set out in *Building a Better Future: Indigenous Housing to 2010*. Queensland is also committed to improving its services to Indigenous people by

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<sup>81</sup> [www.oipc.gov.au/publications/PDF/IndigenousAffairsAgreementQLD.pdf](http://www.oipc.gov.au/publications/PDF/IndigenousAffairsAgreementQLD.pdf) (Accessed 22 August 2006).

<sup>82</sup> [www.lgp.qld.gov.au/?id=3594](http://www.lgp.qld.gov.au/?id=3594) (accessed 22 August 2006). Note: More current data is not available as the Australian Bureau of Statistics has been unable to estimate population changes for Aboriginal Councils and Islander Councils in Queensland from 30 June 2002 to 30 June 2005 as a significant change occurred in a previously used data source, limiting its suitability for estimating population change for Indigenous communities in this period.

<sup>83</sup> <http://www.abs.gov.au/AUSSTATS/abs@.nsf/94713ad445ff1425ca25682000192af2/> (accessed 22 August 2006).

<sup>84</sup> *Ibid.*

<sup>85</sup> *Ibid.*

<sup>86</sup> <http://www.atns.net.au/biogs/A002211b.htm>

improving access to all housing programs in addition to the programs targeted to Indigenous people.<sup>87</sup>

The resultant key policy document, *Partnerships Queensland: Future Directions Framework for Aboriginal and Torres Strait Islander Policy in Queensland 2005-10*, contains a number of practical initiatives that will enhance the introduction of Partnerships Queensland, including:

- A\$5.6 million to develop teams to assist homeless (including Aboriginal and Torres Strait Islander) people across the state and establish 30 transitory accommodation places for homeless people with a mental illness;
- Capital investment in the Aboriginal and Torres Strait Islander Housing Rental Program:
  - A\$9.6 million for a construction program to commence 40 new dwellings and complete 20 dwellings, with 15 new buildings to be built to adaptable standards;
  - A\$8.3 million to purchase 28 dwellings for future housing solutions;
  - A\$1.6 million to acquire and improve land for future construction of approximately 10 units of accommodation;
  - A\$9 million to commence general upgrades of approximately 1500 dwellings within the rental program;
- A\$9 million to maintain Aboriginal and Torres Strait Islander housing; and
- A\$70.5 million in grants for the construction and upgrade of housing in the 34 discrete Aboriginal and Torres Strait Islander communities. This includes A\$2 million to begin construction of appropriate transportable homes for discrete Aboriginal and Torres Strait Islander communities.<sup>88</sup>

### **Community level arrangements**

Palm Island is covered by a Deed of Grant in Trust (DOGIT) through which no individual can own land, borrow from banks for home loans, or use land assets to establish homes or businesses. The purpose of these arrangements is to hold land 'in trust' for traditional owners so that it cannot be exploited or sold. The Palm Island Aboriginal Shire Council negotiates and administers a series of leases for all development on the Island including residential accommodation.

Funding for housing delivery in DOGIT communities is currently provided in two ways. First, the Australian government provides funding for housing in Indigenous communities through the NAHS. The Australian Army has built some housing on Palm Island under this strategy. Until recently, funding under the strategy was provided via ATSIC. However, with the demise of ATSIC, negotiations are in place to transfer this Commonwealth program to the States and Territories.<sup>89</sup> Second, funding for housing is provided through the CSHA to which the Queensland Government also contributes significant resources. This funds the Housing Improvement Program that is delivered by the Queensland Department of Housing.<sup>90</sup> The Palm Island Council is provided with grants by the Department of Housing to build an agreed number of houses and complete an agreed number of upgrades each year with Project Services negotiating written agreements with the Council on a project-by-project basis. The Council makes decisions as to sites on which housing is to be located and appoints a project manager,

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<sup>87</sup> <http://www.housing.qld.gov.au/about/pub/nsha/bilateral.htm>

<sup>88</sup> [http://www.datsip.qld.gov.au/pdf/partnerships/pq2005\\_overview.pdf](http://www.datsip.qld.gov.au/pdf/partnerships/pq2005_overview.pdf)

<sup>89</sup> *Ibid.*

<sup>90</sup> The Department of Local Government, Planning, Sport and Recreation (Queensland) also delivers infrastructure related to housing (water, sewerage etc) with this funding.

from either within the community or externally, to be responsible for housing design, specifications, standards, and required certification checks.

*The Palm Island Select Committee Report 2005* has made three recommendations that may affect housing development in the near future. First, the critical shortage of housing on the Island and the impact that this shortage has on the community has been made a priority.<sup>91</sup> Second, it was acknowledged that construction of housing is hampered by land planning issues, especially the difficult terrain of large areas of the island and the need for water and sanitation infrastructure. Thus, an acceleration of land use planning is underway. Third, the report recommends a review and rationalisation of land tenure arrangements to enable a new form of tenure that may facilitate home ownership and economic development.<sup>92</sup>

### **3.8 Conclusion**

The next phases of the research will explore the results of these many policy initiatives and governance arrangements upon the domiciliary experiences and housing aspirations of residents in the three case study sites of Maningrida, Mimili and Palm Island. This will involve the analysis of data collected from interviews with a wide range of stakeholders in Indigenous housing, including families and households in remote communities, local housing and health officers, Indigenous community councils, relevant State/Territory and Commonwealth government officers, building companies and tradespersons, architects and project managers. This analysis will be provided in the Final Report of this project.

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<sup>91</sup> <http://www.parliament.qld.gov.au/PISC> (Accessed on 8 August 2006).

<sup>92</sup> *Ibid.*

## 4 FACTORS AFFECTING EFFECTIVE DESIGN PRACTICE IN REMOTE INDIGENOUS HOUSING

I don't know where architecture comes into all of this, because from what I see it's all driven by dollars and not by design. It's not driven by community wants or space usage either. I don't think it's driven by anything other than how much weather gets into a house and how cheap they can built as many houses as possible.<sup>93</sup>

### 4.1 Introduction

The policy context outlined in the previous chapter provides the framework within which for remote Indigenous housing is designed and constructed in communities. However, policy is more than the agreements and official documents signed by governments and their representatives. Policy also involves the allocation of resources to competing priorities and the power relationships that determine the relative allocation of funds and other resources to one priority over another.<sup>94</sup> Thus, there is often a difference between the aspirations and idealism of policy in a particular field and the capability of governments and their partners to implement them in full. This has often been the case with Indigenous housing policy in Australia, especially in the delivery of a sufficient number of well designed homes in remote areas. Thus, *The Australian State of the Environment Report 2001* remarks on this issue of policy (non-)implementation when it states: "The current inadequacy of housing and settlement infrastructure has been clearly identified as making a significant contribution to the atrocious standards of Indigenous health.... The Indigenous housing backlog identified by politicians in the early 1970's remains elusively out of reach".<sup>95</sup>

This chapter analyses the range of factors that have impacted upon the implementation of Indigenous housing policy in remote areas in recent times, including: (i) socio-demographic issues, (ii) culture and design, (iii) consultation processes, (iv) the costs of remoteness, and (v) procurement and delivery processes and systems.

The focus in this chapter is the implications of these factors on appropriate design for remote Indigenous housing, not on the number or provision of houses, per se. However, the two cannot be separated as a key issue impacting on design quality is the need to spread available funds broadly in order to build the largest number of houses at the best price – and design is often neglected in the short-term budgeting behind this process. Indeed, despite the variety of demographic, cultural, geographic, economic, health, educational and design issues in the above list – and to be discussed below, the key issue is nearly always one of matching the available funds to meet the demands of an Indigenous housing crisis in as rapid and cost-effective way as possible. However, to date, there is little evidence of life-cycle analysis and whole-of-life costing being integrated into the design system for remote Indigenous housing and, thus, it not known if the expeditious approach currently being practiced is actually cost-effective in the long-run, especially when the down-stream costs of the non-housing outcomes of inappropriate and unsustainable housing – such as poor health, low education attainment, family violence and so on – are costed.

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<sup>93</sup> Interview, 9 June 2006.

<sup>94</sup> Leftwich, A. ed. (2004) *What is Politics? The Activity and its Study*, 2nd edition, Polity Press, Cambridge.

<sup>95</sup> Newton, P. (2001) Human Settlements Theme Report: Australia State of the Environment Report 2001. On-line at <http://www.deh.gov.au/soe/2001/settlements/settlements06-8.html> (accessed 2 August 2006).

## 4.2 Implications for design from socio-demographic issues in Indigenous housing

The Aboriginal and Torres Strait Islander population was estimated at just over 500,000 (2.4% of the total Australian population) in 2006.<sup>96</sup> The distribution of Indigenous Australians is quite distinctive in what is predominantly an urban nation. Indigenous people are more likely to live in rural and remote areas than non-Indigenous people and are also less likely to live in major cities and towns. Indeed, where over 70 per cent of the total population lives in cities and large regional towns and only 3 per cent in remote/very remote settlements, less than 50 percent of Indigenous Australians live in the former but 29 percent in the latter (see Figure 1). This population distribution pattern means that a significant number of Indigenous Australians are living in the areas that are the most difficult to reach, the most climatically inhospitable and the most expensive in which to build appropriately-designed housing. The resultant problems for housing policy makers, community councils and, significantly, for remote Indigenous Australians are intensified by five socio-demographic characteristics of Indigenous society.

First, historical factors, such as the establishment of missions or Aboriginal reserves, have resulted in diversity in the Aboriginal population of remote communities. Where a community has members of different Aboriginal language groups, many of whom have been removed from “country”, and there is little or no employment, social problems of varying degrees of severity may develop, including overcrowding, alcohol and drug abuse, housing insecurity and high levels of intra- and inter-community mobility. This situation is exacerbated by the poor access to health services housing and education in remote parts of Australia. This situation has several implications for the design of houses, e.g. designs must integrate the “health hardware” for kitchens, bathrooms, toilets and laundry facilities detailed in the National Indigenous Housing Guide in sufficient numbers to cater for real household sizes and compositions, not the ideal nuclear family a home might be ostensibly designed for. Materials used for windows, walls, doors, fixtures and floor covering must also be of a sufficient robustness to cope with the harsh environmental conditions in remote parts of Australia and the larger-than-average number of people using them at any one time. A high standard of sturdy construction and workmanship is also necessary to respond to this need.

Second, the Indigenous population has a younger age structure than mainstream Australia. For example, the proportion of Indigenous persons under 15 years of age is nearly double that of non-Indigenous persons, 39 and 20 percent, respectively. Conversely, where persons aged 65 years and over comprised 13 percent of the non-Indigenous population, only 3 percent of Indigenous Australians were in this age group. Thus, the median age of Australia's Indigenous population (20 years) is 16 years younger than the median age for the non-Indigenous population (36 years). With current birth rates slightly higher than those of non-Indigenous Australians, the youthful nature of the Indigenous population and associated higher percentage in or coming to the child-bearing age of life will put added pressure on housing demand in remote Indigenous settlements.<sup>97</sup>

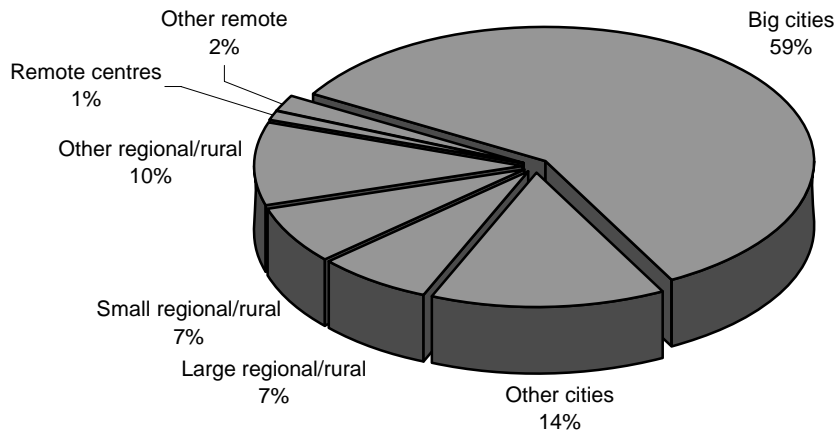
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<sup>96</sup> See Australian Bureau of Statistics (ABS) (2004) *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991–2009*, ABS, Canberra; and Australian Institute of Health and Welfare (AIHW) and Australian Bureau of Statistics (ABS) (2006) *Recent Developments in the Collection of Aboriginal and Torres Strait Islander Health and Welfare Statistics 2005*, AIHW and ABS, Canberra.

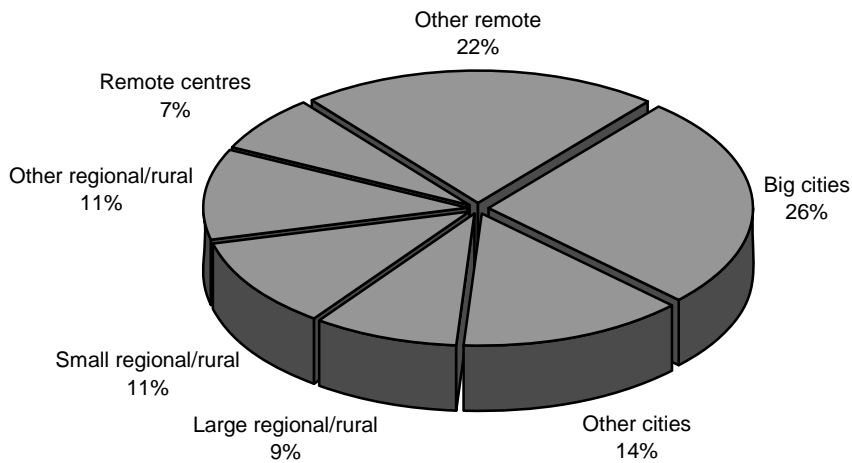
<sup>97</sup> Commonwealth of Australia (2004) *Yearbook of Australia 2004*, Australian Bureau of Statistics, Canberra.

**Figure 1: Population distribution of Australia: total population compared with Indigenous population<sup>98</sup>**

**Total population**



**Indigenous population**



<sup>98</sup> Memmott, P. and Moran, A. (2001) *Indigenous Settlements of Australia*, Australia: State of the Environment Second Technical Paper Series (Human Settlements), Series 2, Department of the Environment and Heritage, Canberra. On-line at <http://www.deh.gov.au/soe/techpapers/indigenous/distribution.html> (accessed 4 August 2006).



This situation has several implications for design. In addition to the general shortage of housing in these areas, there is a very significant need to design and provide unit-type dwellings for young couples and single parents with one or two infants who wish to move out of overcrowded family homes and live independently. The needs of single young men and women and the elderly for independent living accommodation also point to the need for an increased variety of dwelling types to be provided.

Third, there is a severe shortage of housing for Indigenous Australians, especially for those living in remote areas. For example, using the number of existing bedrooms in all Indigenous households in comparison with a Proxy Occupancy Standard as a measure of housing need, The Australian Institute of Health and Welfare (AIHW)<sup>99</sup> estimates that there were 13,380 (10%) overcrowded Indigenous households in Australia in 2001, with the highest proportion being in the Northern Territory where 32 percent of all Indigenous households were overcrowded. As a result, a high proportion of Indigenous people were living in overcrowded conditions, 22 percent on average across Australia with the proportion was highest in the Northern Territory (61%), Western Australia (27%), Queensland (21%) and South Australia (20%). Overcrowding was also highest in the Indigenous Community Housing sector (i.e. predominantly in remote areas) with about one in every three (34%) households being overcrowded. The rate of overcrowding among Indigenous people was six times the rate of overcrowding among non-Indigenous people. The proportion of Indigenous people living in overcrowded conditions was also 6 times the rate of non-Indigenous people (22% compared with 3.5%). More recent data on the total number of bedrooms needed in remote settlements is not readily available except in South Australia and Queensland. In remote Queensland communities, 4,656 additional bedrooms, or an average of 2.9 additional bedrooms per household, are required while, in South Australia the figures are 2,569 and 3.3, respectively.<sup>100</sup>

The pressures of overcrowding are intensified by relatively high levels of mobility amongst Indigenous Australians. As a result, the population of Indigenous settlements can vary greatly with the seasons and the timing of significant cultural and family events which underpin customary practices of mobility.<sup>101</sup> However, mobility does not play as big a role as one might think as inter- and intra- community mobility by Indigenous people in remote areas tend to cancel each other out. As Memmott and Moran argue “In these areas, Indigenous mobility patterns approximate constant circulation rather than migration with the development of localized.... This can create, in effect, two distinct populations in remote regions, a relatively stable and long standing (albeit locally mobile) Indigenous resident group and a chronically transient non-indigenous group.”<sup>102</sup> The problem is terms of housing provision, however, is that restricted budgets and overcrowded housing for the former means that Indigenous housing agencies and ICHOs find it very difficult to find resources to provide housing for the latter. Nevertheless, action needs to be taken to respond to this need not just by building more houses but also *by commissioning extensions to existing houses so that families can accommodate their mobile relatives or by the construction of studio and motel-type units.*<sup>103</sup>

Unfortunately, most homes continue to be designed on the non-Indigenous norm of two, three, or (sometimes) four bedrooms, with one bedroom for parents and the remainder divided among children. However, overcrowding means that bedroom spaces are not generally allocated in this way. For example, it is normal in an

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<sup>99</sup> Australian Institute for Health and Welfare (AIHW) (2005a, 2005b) *op.cit.*

<sup>100</sup> Australian Institute for Health and Welfare (AIHW) (2005a) *op.cit.*, Indicator 22.

<sup>101</sup> Memmott, P. Long, S and Thomson, L. (2006) *Indigenous mobility in rural and remote Australia*, AHURI Final Report.

<sup>102</sup> Memmott and Moran (2001) *op. cit.*

<sup>103</sup> See Memmott, Long and Thomson (2006) *op. cit.*, p. 103.

overcrowded house to find each bedroom occupied by a nuclear family itself, or by various other family formations such as: a young couple or single parent with infant/s, a group of single men or single women, or a grandparent with several children or teenagers. This raises questions about the implications for design of family privacy, noise issues affecting the sleep of the elderly and infants, larger bedroom size, the provision of sufficient storage and security for the belongings of different household sub-units. The resultant high levels of overcrowding also place severe pressures on kitchen, bathroom and laundry facilities, often leading to the blockage of sewers and drains and breakages to windows and fittings for which it is difficult to get skilled labour to repair and replace. This means that the robustness of materials and quality of construction mentioned above are important design implications here also. Sleep deprivation for children and the elderly is also a significant issue and designers must begin to give consideration to internal noise insulation and to locating some bedrooms away from others and from noisy living areas, privacy of access to bedrooms, and the co-location of bedrooms with bathrooms and toilets, especially in relation to gender-related customs.

In addition to the need for more housing to address overcrowding, overcrowding poses an additional dilemma for Indigenous housing agencies and ICHOs: Is it best to design new dwellings for nuclear families (i.e. 2, 3 or 4 bedroom homes), hoping that the housing backlog will soon be met? Or should overcrowding be recognised as a reality, especially given the budget shortfalls to satisfy all Indigenous housing needs, and architects commissioned to concentrate on designing for house extensions – perhaps two additional bedrooms and an extra bathroom and toilet – instead of just new multi-family dwellings? Larger water tanks are also important additions in this process.

Fourth, there is a very high rate of homelessness among Indigenous Australians.<sup>104</sup> Despite representing 2.1 percent of the Australian population at the time of the 2001 Census, Indigenous people made up 18.9 percent of those in “primary homelessness” (living in improvised homes, tents or sleeping out) and 8.5 percent of the total homeless population, respectively.<sup>105</sup> Significantly, also, where over 50 percent of non-Indigenous Australians who are homeless can stay with friends and relatives, only around 20 percent of Indigenous people can do so due to reasons of overcrowding and remoteness, thus making the need for more housing provision and the design of housing units for single men, single women, and the elderly homeless all the more urgent.<sup>106</sup>

Fifth, there is an extreme shortage of employment in remote Indigenous communities. The labour force participation rate for Indigenous people aged 18 to 64 years was 64 per cent in 2002, just over three quarters of that for non-Indigenous people while the unemployment rate in 2002 was 3.2 times higher for Indigenous than for non-Indigenous people.<sup>107</sup> As a result, family and household incomes for Indigenous people is far lower than for non-Indigenous people. Apart from the health, self-esteem and well-being benefits brought by regular employment, the low income of Indigenous families makes home ownership an almost impossible aspiration. As a result, a much lower proportion of Indigenous people (27 per cent) than non-Indigenous people (74 per cent) lived in homes someone in their household owned or was purchasing.<sup>108</sup> In

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<sup>104</sup> For a discussion of the various dimensions of Indigenous homelessness, see Memmott, P, Long, S. and Chambers, C. (2003) *Categories of Indigenous 'homeless' people and good practice responses to their needs*, AHURI Positioning Paper.

<sup>105</sup> See Fleteau, P. et al (2005) *Indigenous Housing Need and Mainstream Public Housing Access and Sustainability Factors*, Paper to Australian Social Policy Conference, University of New South Wales

<sup>106</sup> Australian Institute for Health and Welfare (AIHW) (2005b) *op.cit*, p. 27.

<sup>107</sup> Indigenous unemployment rates are actually worse than this as over 36,000 Indigenous people are currently engaged in CDEP programs.

<sup>108</sup> Steering Committee for the Review of Government Service Provision (2005) *Overcoming Indigenous Disadvantage: Key Indicators 2005*, Productivity Commission, Canberra, Sections 3.4, 3.5 and 3.6.

remote settlements, with high levels of unemployment (which makes obtaining a mortgage extremely difficult) and where land is held under community title, almost all homes are rented. Without equity in their home, it is not possible for remote Indigenous Australians to borrow for repairs and improvements. As a result, the related cycles of unemployment, low income, high levels of home rentals and increasing housing disrepair further stretch the budgets of governments and ICHOs to supply more and better housing.

### 4.3 Culture and design

While Indigenous culture is dynamic and has accommodated many aspects of western lifestyles, many customary behaviour and cultural practices also remain and have impacts on the design (and costs) of housing in remote Indigenous communities. These include: large and complex households, mobility, a desire for wide sight-lines from a house, different seasonal use of spaces, outdoor-indoor living, outdoor cooking and socializing and what Memmott and Moran call “culturally distinct behaviours in domiciliary environments”, including: “forms of approach and departure behaviour, external orientation and sensory communication between domiciles, sleeping behaviour, cooking behaviour and other hearth-oriented behaviours, and particular storage techniques for artefacts and resources”.<sup>109</sup> The need for clear sight-lines from and to houses, for example in response to certain avoidance behaviours, privacy of access to toilets, rules against certain people using the same toilets, and the need for separate accommodation for young unmarried men and women are significant outcomes of moiety and inter- and intra-generational relationships to which housing designers needs to respond. The fluid use of outdoor spaces for cooking and socializing is another cultural more to which designers must respond for houses to function successfully. This may necessitate alternative house designs, responses to aspect and breezes and allotment spacings. It may also involve designs that challenge western notions of what a “house” is by proposing living environments composed of bedrooms isolated from, but surrounding, a centralised kitchen-storage-ablutions unit, pit-fires and shaded pergolas on allotments which are separated by open space.

A range of best-practice approaches to designing houses that respond positively to such cultural mores is discussed in Chapter 5. The point here is that incorporating such features into the design of a home can add extra costs and, perhaps, reduce the total number of housing units that can be constructed. An appropriate design objective is to achieve these cultural outcomes without increasing overall costs. Paradoxically, this may be achieved by incorporating certain other cultural mores into housing design. For example, the cultural preference for living in mixed generation, extended family spaces means that, provided sufficient bedrooms and ablution and cooking arrangements are built into a design, one house can successfully serve the needs of what may be seen as up to three families, thereby effecting net savings in housing costs.

Another aspect of Indigenous culture that may have a similarly paradoxical impact on the cost of housing related to traditions trans-generational traditions in living arrangements. It is not appropriate for elderly Indigenous people to live separately from their families in old people’s homes. Thus, while it is not necessary to go to the additional costs of providing such facilities, it is necessary to provide additional bedrooms in family homes to provide appropriate living arrangements for elderly people. Preferably, these need to be well insulated for sound or located at a distance from living rooms and outdoor socialising spaces to enable elderly people to sleep well. It is also traditional for young single women and, especially, single young men to live separately from their families after puberty so that customary education and moral guidance can be provided. Responding to this need in an appropriate way may reduce

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<sup>109</sup> Memmott, P. and Moran, A. (2001) *op. cit.*

the impacts of overcrowding on family homes but does necessitate the costs of providing these living quarters.

A final aspect of culture that is an important design consideration is the emergence of the outstation movement which coincided with the end of the assimilation era in government relations with Indigenous people. It has involved a movement – both geographical and cultural - from government settlements and missions to smaller localities — perhaps over one thousand across the country. Representing “an Indigenous rejection of the modernization or development paradigm as experienced at government settlements and missions”, the outstation movement has seen the rejuvenation of customary economic practices.<sup>110</sup> The cost of supplying housing, water, sewerage, electricity – as well as education and health services – to many outstations is extremely expensive and there is currently considerable policy debate about the levels of appropriate government support. In December 2005, the then Commonwealth Minister for Indigenous Affairs, Senator Amanda Vanstone, questioned the need for such support, primarily on the grounds of cost and claims that they were “cultural museums”.<sup>111</sup> However, in the light of objections to regular Commonwealth denigrations of outstations such as this, chiefly from communities themselves<sup>112</sup>, and after the social unrest of May-June 2006, a new Minister, Mr Malcolm Brough, ordered a review of outstations and promised that “safe and healthy outstations will not be closed down, no matter how small they might be”.<sup>113</sup>

Despite costs and political concerns, several case studies of culturally and environmentally responsive designs for outstation housing may be noted, with Bawinanga Aboriginal Corporation (BAC), which is responsible for Maningraida outstations, most notable among these. However, many outstations in northern Australia are located in flood-prone areas, e.g. during the summer monsoon. As a result, many residents move into larger settlements for several months, thus adding to housing pressures in them. Finding a solution to this problem is exacerbated by the split responsibility for housing on outstations and central settlements between different ICHOs that is often the case, e.g. in the Maningraida case where the Maningraida Council is responsible for housing settlement residents but the BAC is responsible for outstation residents.

#### 4.4 Consultation and design

While there are a range of consultation practices leading to housing outcomes in remote area planning and design, a number of factors affect the ability of communication and negotiation methods to provide good practice housing design and delivery. Focusing on remote Aboriginal communities in central Australia, Lee and Morris have identified several key barriers to the implementation of good housing design and construction outcomes.<sup>114</sup> The distinction between *cross-cultural* consultation involving architects and consultants and the people living in communities (the clients) and *cross-disciplinary* consultation involving consultants, service providers and contractors (the providers/managers) is particularly relevant to examining these barriers to effecting good design practice in remote built environments.

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<sup>110</sup> Altman, J. (2006a) *In Search of an Outstations Policy for Indigenous Australia*, Working Paper No. 34, Centre for Aboriginal Economic Policy Research, ANU, Canberra, p. 5.

<sup>111</sup> Vanstone, A. (2005) *Beyond Conspicuous Compassion—Indigenous Australians Deserve More Than Good Intentions*, Address to Australia and New Zealand School of Government, 7 December, ANU, Canberra.

<sup>112</sup> Altman, J. (2006b) Inconvenient facts: Denigrating Aboriginal outstations as “cultural museums” ignores the facts, *Arena Magazine*, 82, pp. 9–10.

<sup>113</sup> See Altman (2006a), *op.cit.* pp. 16-17.

<sup>114</sup> Lee and Morris (2005). *op. cit.*

The most significant barriers to effective cross-cultural consultation and negotiation are standardised housing and planning regimes, which are driven by budgetary and time constraints.<sup>115</sup> This usually results in failing to uncover the diverse cultural and climatic issues particular to the built environments of each community. As a result, participatory consultation and negotiation between communities and their housing designers and providers are either truncated or confined to narrow definitions of house type and layout, which limit recognition of the broader social and environmental needs of remote communities. Other reasons for inappropriate consultation and consequent impacts on the quality and appropriateness of housing designs include: not consulting with the right people, lack of experience in cross-cultural consultation, and a lack of sufficient time for consultation due to fee constraints.<sup>116</sup>

Another aspect of consultation in effective design involves determining the familiarity of residents with living in new houses and their experience with using and maintaining fixtures, fittings and equipment. As one senior manager responsible for remote Indigenous housing remarked:

You still have a lot of communities too where people don't know how to live in houses, even though they have been living in them for a long time. They still haven't been taught how to use the house properly and what all the parts of the house are for. ... There is a lot of programs around that help people learn to live in a house and use a house but there is also a lot of people who haven't been given these programs. Their lack of knowledge about what they do and how it affects the house causes us a lot of trouble in the end.<sup>117</sup>

The most significant barrier to effective cross-disciplinary consultation and negotiation relates to the lack of well maintained databases of existing conditions and records of past consultation between all parties; which can often result in projects that are developed with inadequate information and coordination between consultants and service providers, leading to ill-conceived outcomes. The limited consultation that does occur, if not related to past consultation, can fail to identify particular and ongoing community needs and changing dynamics. This is where the overwhelming neglect of Post-Occupancy Evaluation (POE) of Indigenous housing around the country – chiefly for the sort of cost reasons described in the next section – undermines effective design practice. While pre-handover inspections are mandated in most jurisdictions, Post-Occupancy Evaluation (POE) is rare and opportunities to learn from successes and mistakes in design missed.

Integrating these aspects of effective consultation takes time and the costs can be significant although they are generally only a small proportion of the total design and construction costs. Nevertheless, when housing managers are under budget pressure and the number of housing units built is a prime driver, consultation over design is often curtailed and household skills training and Post-Occupancy Evaluations deleted from the design system altogether.

## 4.5 The costs of remoteness

Distance exercises a terrible cost tyranny over effective design practice in all remote areas. The cost of designing and building houses is generally much higher in these communities compared with costs in cities and provincial centres. The reasons for this include:

- Their distance from sources of building materials and a lack of competition in the supply and, therefore, pricing of materials

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<sup>115</sup> The issue of standardized housing designs is discussed in Section 4.5.

<sup>116</sup> See The Architects Studio (2000) *Living Spaces - Post Occupancy Evaluation: NT Remote Community Housing*. Unpublished report to ATSIC and IHANT, p. 4.

<sup>117</sup> Interview, 12 June 2006.

- The high cost of transport of materials to remote building sites
- The shortage of carpenters, plumbers, electricians and other skilled tradesmen in remote settlements and the high cost of external labour
- A lack of competition in tender processes due to a low number of building companies willing and able to build in remote areas, especially when contracts are often for one or two houses
- Consequent poor economies of scale in purchasing materials and the cost of labour
- Labour costs are also increased by the 6-7 month construction “season” due to inaccessibility issues in the long wet season in monsoonal northern Australia or desert summer heat in central Australia.

Distance also adds greatly to the costs of providing water, waste water, dry waste and electricity infrastructure, costs that have to be divided across a relatively lower number of residents compared to the urban and provincial centres, thus adding to per-unit and per-capita housing costs.

The costs of building houses in remote settlements are also increased by the need to respond to the design implications of the socio-demographic and cultural factors outlined in previous sub-sections (e.g. integrating verandahs, outdoor living and cooking areas, family storage facilities, additional bathrooms, toilets and bedrooms, and larger bedrooms, water tanks and waste water systems, etc). Increased rates of wear and tear caused by overcrowding, as well as the corrosive damage caused heavy rainfall and high humidity in northern Australia and by sand in central, south and west Australia, also lead to a need to specify more robust building materials and stronger construction technologies in designs than required for houses in non-remote areas, thus adding to the costs of construction.

As a result, the average cost of providing houses in remote Indigenous communities can be up to and, sometimes, more than double the cost of public housing in urban and provincial centres. For example, in the Northern Territory, the average construction cost of a three-bedroom house in 2006 in the NT is \$330,000, up 275% from 1996 (\$120,000).<sup>118</sup> Table 1 shows the construction costs per house for recent tenders and completed projects in selected remote Indigenous settlements in the Northern Territory.

These cost pressures pose almost irreconcilable tensions for housing managers. For example, high housing costs mean less houses than the number needed can be build within available budgets. This, in turn, means that housing shortages and overcrowding cannot be addressed as quickly as necessary. This leads to even high potential construction costs due to the need to design for increased robustness, more and larger-sized bedrooms, additional toilets and bathroom facilities, etc.

**Table 2: Construction costs per house for recent tenders and completed projects in selected remote Indigenous settlements in the Northern Territory<sup>119</sup>**

<i>Settlement</i>	<i>Construction Cost</i>	<i>Notes</i>
Maningrida	\$280,000	
Yuendumu	\$290,000	standard design house
Mutijulu	\$298,000	
Apatula	\$330,000	
Thamurrur	\$351,000	tilt up/standard designs
Urapunja	\$445,000	only one tender received

<sup>118</sup> ABC News (2006) New Design to Cut Housing Costs, 23 June. Similar cost increases are reported in South Australia and Queensland.

<sup>119</sup> Interview, 6 June 2006.

At least in theory! What often happens instead is that cost pressures lead to decisions not to provide these additional spaces and facilities and, indeed, often also to decisions not to include even basic design and construction specifications as too expensive. As McPeake and Pholeros write of one of the key findings of the Fixing Houses for Better Health program:

Reducing the cost of new houses to enable budgets to build more houses, to address real problems of overcrowding, will often reduce the money spent on key specification items leading to loss of house function. Common 'reductions' are: little or no insulation, smaller hot water system with higher running costs, tapware, and door and window quality, light fitting numbers and quality, less inspection of the works and no yard works or fencing.<sup>120</sup>

The resultant under-specification of materials and fittings, together with difficulties in obtaining diligent skilled workers, means that rough treatment and resident damage represent only 8 percent of repair and maintenance needs in Indigenous houses, with 26 percent resulting from faulty workmanship at the time of construction and 66 percent being routine maintenance.<sup>121</sup> Table 2 shows the particular acuteness of faulty initial workmanship in electrical works and plumbing in relation to tenant damage and routine maintenance which, itself, "may well have been caused by poor initial construction", incorrect installation, the use of wrong components or essential components not being provided.<sup>122</sup>

As a result, McPeake and Pholeros have developed a list of building items where detailed specifications are needed in the design stage. These include:

- Waste water systems able to cope with large numbers of people
- Hot water systems, considering issues of water quality, household size and running costs
- Bathroom layouts to cope with large numbers of people and floor drainage
- Shower roses, considering water quality and potential corrosion
- Doors and hardware, particularly locks
- Windows and insect screening that are safe, secure and not easily broken
- Cook tops and ovens that are safe to use
- Kitchen bench tops and splash backs that are easy to keep clean
- Kitchen storage units and refrigeration facilities for keeping food fresh, cool and pest free
- Usable yard areas with cooking, sleeping and eating potential
- Interior thermal performance equivalent to sitting outside the house or in the shade.
- Durable light fittings and energy saving light bulbs and tubes.<sup>123</sup>

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<sup>120</sup> McPeake, T. and Pholeros, P. (2005) *Fixing Houses for Better Health in Remote Communities*. Paper to National Housing Conference 2005, p. 6.

<sup>121</sup> *Ibid.*, p. 5

<sup>122</sup> *Ibid.*, pp. 7-8.

<sup>123</sup> *Ibid.*, p. 7.

**Table 3: Analysis of causes of national “fix work” in fixing houses for better health and housing for health programs, 1999-2005<sup>124</sup>**

<i>Reason for repair</i>	<i>Electrician</i>	<i>Plumbing</i>	<i>All other trades</i>	<i>Total*</i>
Routine maintenance	21%	42%	2%	65%
Faulty workmanship	13%	13%	-	26%
Tenant damage	4%	3%	1%	8%

Data represent 38,163 items fixed from 53,185 inspected.

\* Totals do not equal data in preceding paragraph or total 100% due to rounding.

#### **4.6 Procurement and delivery processes and systems: implications for design**

Processes for the funding and procurement of housing in remote Indigenous settlements are complex and dynamic, making it difficult for ICHOs to be efficient and effective. Despite nationally agreed funding mechanisms and endorsement of the minimum standards in the *National Indigenous Housing Guide*, procurement processes at the local level are very complex and involves regulations about, and skills in:

- Understanding a complex regulatory framework at national and State/Territory levels, especially following the demise of ATSIC and recent plans to strip ICHOs of housing money, which will instead be managed by State/Territory governments
- Keeping up with changes in the national and State/Territory government portfolios responsible for Indigenous housing and the division of responsibilities between State/Territory government departments for different aspects of the design system with funding and management perhaps the responsibility one department and construction and project management the responsibility of another
- Identifying and justifying housing needs on an annual basis
- Managing waiting lists
- Interacting with State/Territory housing and infrastructure agencies, preparing submissions, negotiating agreements and contracts and writing reports
- Receiving and managing funds for housing
- Balancing funds across the needs for new homes, upgrades and extensions and maintenance and repairs
- Preparing briefs and contracts for architects, project managers and building contractors and sub-contractors
- Developing, costing and managing maintenance schedules.<sup>125</sup>

The understanding and skill levels required of Council members, Council CEOs and Housing Officers in remote settlements is far in excess of what small organizations such as ICHOs often possess. As Northern Territory Chief Minister Clare Martin said in June 2006:

The biggest cause of where we are now is that we said to small Aboriginal communities in remote parts of Australia, and the Territory, to manage their own affairs.

You wouldn't tell my suburb to manage its own affairs. If you said to the Narrows, where I live, you do your rates and your rubbish and run your store and health clinic, we'd fail.<sup>126</sup>

<sup>124</sup> *Ibid.*, p. 7.

<sup>125</sup> This list was developed from interviews with CEOs and Housing Officers in the case study settlements.

<sup>126</sup> Karvelis et al (2006), *op. cit.*



The same could be said of managing the housing design system.<sup>127</sup>

Two other factors also undermine effective design practice in remote Indigenous housing. The first is the low number of houses to be designed and built in any one year in any community. This prevents economies of scale in the cost of materials and labour and does not allow for the solid profit margins out of which innovations in design might be funded. The second is that ICHOs are advised of the budget they have for housing on an annual basis. This causes short-cycle planning where the primary goal is to get the allocated number of houses built in the financial year while waiting to hear of next year's funding levels. Delays in informing ICHOs of their annual budget and the number of new houses and extensions/renovations possible, together with the scarcity of materials and a curtailed building season due to extreme climatic factors, often mean that funds cannot be expended in any one year.<sup>128</sup> In interviews, several Indigenous housing managers also spoke of the effects of short funding cycles on their ability to pay construction fees and wages commensurate with those available for building companies and tradesmen working on relatively well-funded defence department contracts in Darwin and Townsville, and which therefore make housing procurement and delivery difficult.

### **Standardisation of designs**

There is a marked trend towards the mandating of standardised house designs as a solution to the increasing costs of designing and constructing houses in remote Indigenous settlements. Four major reasons are offered for this. First, cost savings are expected to be made from the belief that standardised designs for houses can be built in most locations, thus avoiding recurrent architectural, quantity surveying, drafting, and related design fees. Second, it is believed that economies of scale can be achieved during the construction phase from the use of standard sizes of building components and the bulk purchase of materials when all houses are being built to a common design. Third, standardisation is justified by some government officers by the belief that "big men" in some communities were arranging overly expensive homes for themselves. As one interviewee claimed:

The reason for it [standardization] is that we found a large range of designs out there and that some communities were building houses that were starting to become real "Taj Mahal" situations, and because we wanted our money to go as far as it can. We also wanted a consistent design using the standards that are used elsewhere in Australia, i.e. the Building Code of Australia.<sup>129</sup>

Fourth, it is claimed that standardization can lead to designs that are reasonably simple, and not only cost effective and durable, but also able to be built with local labour, thus contributing to community economic development. As one interviewee described it: "something reasonably simple ... and used all the time so that eventually local people would be able to build and maintain them".<sup>130</sup>

Newspaper reports in early September 2006 indicate that the Commonwealth government may seek to take standardization one step further and make a part of Commonwealth funding to States and Territories for remote Indigenous housing conditional upon the use of prefabricated "flat-pack" housing systems that could, it believes, be delivered for less than half current housing costs. As *The Weekend Australian* reported in a story about the views of Mr Brough, the Minister for Indigenous Affairs:

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<sup>127</sup> The need for capacity building in management skills for ICHO staff is a key recommendation of Hall, J. and Berry, M. (2006) *Indigenous Housing: Assessing the Long Term Costs and the Optimal Balance Between Recurrent and Capital Expenditure*, AHURI Final Report.

<sup>128</sup> *Ibid.*

<sup>129</sup> Interview, 6 June 2006.

<sup>130</sup> *Ibid.*

During discussions about the issue over the past month, Mr Brough has told Indigenous groups and the states that basic houses were costing \$400,000 to build – a figure the federal Government believed could be cut to as low as \$150,000.

Canberra is considering putting to tender a proposal to deliver flat-packed prefabricated homes to remote communities for a third of the cost of existing homes.

... One option would have the money continue to go through the states but with strict conditions on where and on what it was spent. That would include the type of housing built, in which Indigenous communities and with a particular focus on more housing for remote areas.<sup>131</sup>

However, international experience cautions against such an approach. For example, research in remote Inuit communities in Canada has found that:

... there would be no lasting social economic benefits if the Government of Canada were to announce a new housing program with the single purpose of increasing the number of houses. This would be a throw back to earlier failed programs, where the "housing starts" were in the communities, but the economic and other benefits were far outside the Inuit communities.<sup>132</sup>

Several arguments have been made against the trend towards standardisation. These arguments tend to come from architects and anthropologists. Some of the opposition tends to be emotional and has even led some of the very few architects experienced in designing houses in remote Indigenous communities, to withdraw from such work. As one interviewee said:

I'm not working in Aboriginal housing at the moment. This is a deliberate decision because the delivery programs have become quite prescriptive with standardised designs and really heavy reporting.<sup>133</sup>

However, the major concern is whether standard designs can respond adequately to the significant cultural and geographical differences across the diverse expanse of environments in the remote areas of Australia and to the increasing complexity and variety of household types. It is argued that such disparities "cannot be successfully within a single house design or even a range of standard designs".<sup>134</sup> A key fear is that standardisation will also lead to a reduction in client consultation. This fear is based not only on the principle that consultation is important for the reasons outlined in Section 4.3, but also because it would undermine the fragile skill base in construction that is developing in remote communities. Building systems based upon centralised component manufacturing, prefabrication and on-site assembly are necessary for standardisation to lead to significant cost savings. On-site assembly requires a narrower skill base and fewer trades than individually designed houses. While this is one method of addressing the shortage of skilled labour, it does not contribute as much to growth of human capital and economic development at the community level as other approaches to design and construction.

A compromise solution that seeks to balance the benefits and problems of standardisation has been the development of a "limited portfolio" strategy. This involves contracting architects to prepare a portfolio of standard house designs. Seven designs for three and four bedroom houses were prepared for houses in the Apatula Region by the Papunya Regional Council in 1999-2000 in this way (see section 4.6.1). Architects commissioned by the Indigenous Housing Unit of the Northern Territory Department of

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<sup>131</sup> Kearney, S. (2006) \$2bn black hole housing mystery, *The Weekend Australian*, 2-3 September, p. 8.

<sup>132</sup> Inuit Tapiriit Kanatami (2004) *The Case for the Inuit Specific: Renewing the Relationship between the Inuit and the Government of Canada*, Inuit Tapiriit Kanatami, Ottawa, p. 6.

<sup>133</sup> Interview, 8 June 2006.

<sup>134</sup> The Architects Studio (2000), *op. cit.*, p. 10.

Local Government, Housing and Sport have recently completed a series of designs for remote Indigenous housing for use in the NT. However, the architects involved in this process argue strongly that the use of the limited portfolio strategy does not reduce the importance of consultation. Indeed, they say that the pre-prepared designs need to be used as the basis for consultation.<sup>135</sup> They also argue that such portfolios should be prepared for each community or small region not for State- or Territory-wide use because of the diversity of cultural and geographical patterns.<sup>136</sup> Finally, they argue that the portfolios should be revised regularly because “Aboriginal communities are not static” and “housing needs are continually changing in response to internal as well as external ‘influences’ and changing community standards”.<sup>137</sup>

#### 4.6.1 *Development of a limited portfolio strategy in the Apatula region*<sup>138</sup>

The Papunya Regional Council of ATSIC in Central Australia developed an innovative approach to remote housing provision in the Council’s Apatula Region, which comprises the arid semi-desert and mountain country in the southern third of the Northern Territory. From 1995 approximately 37 new houses have been constructed here annually for Indigenous communities, with similar numbers of houses being either renovated or upgraded.

The pilot program was to co-ordinate the construction of approximately forty houses each year in the 15 largest communities of the Apatula Region in order to determine if cost savings from bulk material purchases could be achieved from major, cross-community contracts compared with the tradition of small, community-specific contracts. The goals of the pilot also included improvements in construction efficiency and continuity of training and work for local Indigenous building and maintenance teams.

The pilot also involved the development of a region wide portfolio of standard, high-quality designs by competitive tenders from twenty architectural firms with expertise in designing and constructing remote area Aboriginal housing. The tender sought “cost-effective designs that were technically, culturally and environmentally appropriate.... adaptable in terms of siting and extendability, and ... [that] conform[ed] to environmental health standards for remote Northern Territory communities”.

The project brief specified cultural, environmental and technical design features to suit remote Aboriginal lifestyles, including:

- House yards were to be treated as “living rooms” to accommodate an externally oriented lifestyle and regular long- and short-term visitors, and with toilet and bathroom facilities accessible from external as well as internal spaces.
- Verandahs and sightlines were to be emphasized, with internal living areas having an open-plan design and connection to verandahs to facilitate surveillance of external spaces and approaches.
- Privacy of access and sightlines for bedrooms, bathrooms and toilets.
- Robust and safe kitchen facilities designed in accord with “health hardware” principles, and integrated with outdoor cooking areas.

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<sup>135</sup> Interview, 5 June 2006.

<sup>136</sup> Interview, 7 June 2006.

<sup>137</sup> The Architects Studio (2000), *op. cit.*, p. 10.

<sup>138</sup> Memmott, P. (2001) Papunya Region Pilot Housing Project – A New Initiative in Remote Aboriginal Housing, *Architecture Australia*, May/June. Available on-line at <http://www.architecturemedia.com.au/aa/aaprintissue.php?issueid=200105&article=12> (accessed 2 August 2006). Despite the quality of the design development process and the experience of the architects, this “limited portfolio” initiative has not proven successful due to unsatisfactory procurement processes (Interview, 7 June 2006).

- Passive solar design for cooling and heating, suitable for the hot, arid regional climate.
- Accessibility for ambulant disabled and elderly people.
- Robust materials and construction technologies to minimise cyclical maintenance costs with maintenance requirements consistent with the capabilities of tenants and community-based maintenance teams.
- Compliance with the Building Code of Australia and environmental health standards in the Northern Territory.

Independent technical assessments were prepared on the submitted designs and then the entire Papunya Regional Council drew on its own members' experience with similar house layouts to select five sketch designs for three bedroom houses from the Build-Up Design/Debra Fisher Architect and Tangentyere Design submissions. Two of the designs could be extended to four-bedrooms, thus seven designs were available in total.

## **4.7 Conclusion**

The factors affecting effective design practice analysed in this chapter incorporate a range of barriers and opportunities for improving the quality of life of Indigenous people in remote communities through design. Cost is certainly a significant barrier. The costs of remoteness are experienced in increased prices for construction materials due to shortages of materials, a limited range of suppliers, long distance transport of materials, shortages of skilled trades and a need to specify robust materials and construction technologies. These cost pressures are often met by removing important, culturally significant spaces, under-specification of materials, and the neglect of appropriate consultation, monitoring of workmanship and post-occupancy evaluation. However, these have proven to be short-term cost savings and have resulted in costly maintenance, replacements and repairs. The use of whole-of-life costing and the longer-term thinking associated with this provides an opportunity for housing managers to make innovations in design and financial management processes. The problem of overcrowding and housing shortages are also significant and lead to decisions to build more houses for the short term rather than better designed houses for the long term. Opportunities for design to address overcrowding and housing shortages and contribute to improved housing quality may be found in the possibility of designing houses with more bedrooms, additional living spaces and bathrooms, and to design accommodation units for special demographic groups such as single men, single women, couples, the elderly and the homeless.

## 5 TOWARDS A FRAMEWORK FOR EFFECTIVE DESIGN PRACTICE – OVERVIEW OF EFFECTIVE DESIGN PRACTICE

The results ... clearly show a direct relationship between the amount of time spent on design and a satisfactory outcome. Best results, measured in terms of value for money, building performance and user satisfaction, are achieved where design input had been *significant*.<sup>139</sup>

### 5.1 Introduction

A number of Indigenous housing agencies, community councils and architects have taken the opportunities for design to contribute to improved housing quality, respect customary practices and advance social well-being in remote Indigenous communities alluded to at the conclusion of the previous chapter. This chapter reviews the three broad approaches they have adopted by analysing both the design philosophy and practice characteristic of each one. The purpose of this review of “best practice” approaches is to illustrate ways in which architects sensitive to the socio-demographic, cultural, environmental and economic issues discussed in the previous chapter are developing an effective design practice for remote Indigenous housing. The term, “best practice”, is used here in the sense defined by Minnery, Manicaros and Lindfield<sup>140</sup> in which:

The essential ideas behind ‘best practice’ are the identification of exemplars of practice from other but related situations. Normally ‘best practice’ is seen as holistic, something which considers all relevant aspects of local and external practice. It is not static, but recognises the need for continual improvement. It is evolutionary, in that it recognises the possibility of moving from a situation where only some elements of best practice are in place to a gradually improving situation where most or all elements are in place.

The chapter concludes with a synthesis of the key features of these “best practice” approaches into a draft ten-point “Framework For Effective Design Practice”. The chapter draws from both a review of the existing literature on the subject of Indigenous housing and also from a series of interviews with design practitioners, government and community agencies between June and December 2006.

### 5.2 Approaches to design practice

A number of interviews were undertaken with a wide range of design practitioners, responsible State and Territory government agencies and ICHOs in the pre-fieldwork of this project. (See Annex 1 for a listing of persons and organizations Interviewed and Annex 2 for the Interview Schedule). The purpose of these interviews was to explore the extent to which current housing design practices were perceived to be meeting the housing aspirations and needs of different Indigenous household types. The interviews also explored how the processes of procurement, design and delivery of remote Indigenous housing actually happen, and the barriers encountered in seeking to implement effective design practice. The interviews suggest that a wide range of innovative approaches have been used in the Northern Territory, South Australia and Queensland to improve the design of remote Indigenous housing.

The interviews verified Memmott’s claim that there are three (mutually compatible) approaches to the design of Indigenous housing in Australia: (i) the “Cultural Design”

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<sup>139</sup> The Architects Studio (2000), *op. cit.*, p. 10.

<sup>140</sup> Minnery, J. Manicaros, M. and Lindfield, M. (2000) Remote Area Indigenous Housing: Towards a Model of Best Practice, *Housing Studies*, 15 (2), p. 244.

approach, (ii) the “Environmental Health” approach and the (iii) the “Housing as Process” approach.<sup>141</sup>

### 5.2.1 The “Cultural Design” approach

The first approach of “Cultural Design”, perhaps best exemplified by the research of Paul Memmott, an anthropologist and architect, is based on the belief that the study of Aboriginal domiciliary behaviour underpins any understanding of Aboriginal housing needs. As Memmott comments, “The premise of this paradigm is that to competently design appropriate residential accommodation for Aboriginal people who have traditionally oriented lifestyles, architects must understand the nature of those lifestyles, particularly in the domiciliary context”.<sup>142</sup> Memmott’s “Cultural Design” approach also has implications for how consultation should be undertaken with Indigenous communities. For example, it is critical to observe and record how Aboriginal individuals and groups currently think about and use their dwelling spaces before designing possible configurations of space (that might appear rational to the architect) or thinking of what designing a house in a cost-effective way might entail.

Other architects, such as Cathy Keys and Shaneen Fantin, also write about the need for a detailed cultural understanding of Aboriginal living spaces in the design of Indigenous housing. For example, Fantin points out that “The designer might imbue architecture with Aboriginal Identity through client involvement and authorisation through respecting Aboriginal social practices and revering existing places and histories”.<sup>143</sup> Similarly, architects such as Julian and Barbara Wigley have used their understanding of domiciliary behaviour patterns in the design of Indigenous settlements and houses. The Wigley’s 1976-77 plans for Town Camp housing in Alice Springs is a notable example of this.<sup>144</sup> In this project, ‘the term camp’ is used to describe a number of potential interconnected elements, the fire or hearth, an individual domestic living area, and the shelter of a dwelling for a group of people, which together reflect the domiciliary behaviour of the future users of the Town Camp housing.

### 5.2.2 The ‘Environmental Health’ approach

The “Environmental Health” approach, more commonly known as the “HealthHabitat” or “Housing for Health” model, was originally developed by Paul Pholeros (an architect), Paul Torzillo (a medical doctor) and Steph Rainow (an anthropologist). Their approach is based upon the need to address the problematic environmental health impacts typically associated with poorly designed and constructed Indigenous housing and associated issues of overcrowding and poor sanitation.

The HealthHabitat group emerged from a South Australian government sponsored study in 1986 with the Nganampa Health Council in the AP Lands in South Australia by Pholeros, Torzillo and Rainow. Memmott describes this study (more commonly known as “the UPK Report”<sup>145</sup>) as “the first that systematically isolated and casually linked complexes of health problems with sets of design features, and then ranked them into a set of priorities based on the likelihood of improving health standards”.<sup>146</sup>

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<sup>141</sup> Memmott, P. (2004) Aboriginal Housing: Has the state of the Art Improved? *Architecture Australia*, Jan.-Feb., pp. 46-48.

<sup>142</sup> *Ibid.*, p. 46.

<sup>143</sup> Fantin, S. (2003) Aboriginal identities in architecture: how might architecture interpret cultural identity? *Architecture Australia*, September/October 2003, p 15.

<sup>144</sup> See Wigley, J. and Wigley, B (2003) Remote conundrums: The changing role of housing in Aboriginal communities, in Memmott, P. ed., *Take 2: Housing Design in Indigenous Australia*, Royal Australian Institute of Architects, Canberra, p. 22

<sup>145</sup> Pholeros, P., Rainow, S. and Torzillo, P. (1993) *Housing for Health: Towards a Healthy Living Environment for Aboriginal Australia*, HealthHabitat, Newport Beach.

<sup>146</sup> Memmott, P. (2004), *op. cit.*

After the Nganampa study, HealthHabitat developed a series of guidelines they called the “Nine Healthy Living Practices” to indicate how the key housing issues of safety, health, quality control and sustainability could be integrated into housing design and maintenance in a practical way. Detailed specifications for electricity, plumbing and water quality in Aboriginal housing were developed to support the nine healthy living practices, and were later incorporated into the *National Indigenous Housing Guide* in 1999.<sup>147</sup>

HealthHabitat’s approach to improving the environmental health status of Indigenous Housing developed into a national program called “Fixing Houses for Better Health” (FHBH). Originally funded by ATSIIC, it has grown significantly and, in 2004-2005 assessed and fixed “health hardware” in 545 houses in 19 communities at a total cost of \$3 million.<sup>148</sup> The FHBH program seeks to make urgent safety and health hardware repairs to existing housing and surrounding living areas such as backyards and has come to be associated more with maintaining and fixing existing houses than designing new homes in Indigenous settlements. HealthHabitat also emphasises employing local Indigenous people on every project to ensure local people receive “on the tools” training for fixing minor problems on community houses, and using standardised tests to collect detailed data which contributes to a growing stock of information about housing faults and issues.<sup>149</sup>

### 5.2.3 The ‘Housing as Process’ approach

The “Housing as Process” approach extends Memmott’s emphasis on Cultural Design to also take account of a community’s capacities in housing management and views determining an appropriate design process for Indigenous clients as part of a larger cyclical process from consultation to housing delivery. Proponents of this approach include a range of architects who have designed housing projects in remote communities in the Northern Territory and Western Australia including Paul Haar, Geoff Barker and Simon Scally. Geoff Barker actually describes the process as comprising two cycles of contextualisation – one related to the people in a community and the geography of the region and one related to the housing system, which together give rise to a series of (not always sequential) steps, including:

- Determining the client brief through extensive consultation about existing cultural issues and local histories
- Determining the planning and funding arrangements
- Addressing sustainability issues (including the availability of resident support services)
- Taking into account siting issues, such as solar orientation and sight lines
- Working out the availability of construction materials and building technologies
- Addressing procurement and construction issues
- Ensuring that management and maintenance of housing is taken into account in the original cost planning budgets.<sup>150</sup>

There are many built examples of the “Housing as Process” approach. One such project is Paul Haar’s Mt Catt Homeland Centre in the Northern Territory (1985). This project involved sourcing, where available, the building materials from the local bush and involving the local community in the planning and construction of their camp

<sup>147</sup> See Part B, “Health”; available on-line at [http://www.facs.gov.au/indigenous/housing\\_guide2/b0.htm](http://www.facs.gov.au/indigenous/housing_guide2/b0.htm)

<sup>148</sup> McPeake, T. and Pholeros, P. (2005) *op cit*.

<sup>149</sup> Interview, 28 June, 2006.

<sup>150</sup> Barker, G. (2003) More than a house: Some reflections on working with Indigenous clients on the housing process, in Memmott, P. ed., *Take 2: Housing Design in Indigenous Australia*, Royal Australian Institute of Architects, Canberra, pp. 98-105.

facilities, communal wet season shelters and the provision of infrastructure requirements such as water and closed storage spaces.<sup>151</sup> Haar comments that in developing design for these remote Indigenous communities, “One cannot underestimate the value of remote communities to appropriate their own dwelling experience to design, construct and take pride in their own homes, and again to embrace housing as a symbol of the self”.<sup>152</sup>

### 5.3 Towards a framework for effective design practice

Minnery et al. (2000) have recognized that the design, procurement and delivery of remote area Indigenous housing is more complex than these three models, however, and have proposed a two-dimensional matrix to help map elements of “best practice” in the field.<sup>153</sup> The first dimension relates to four stages in the housing provision process:

1. *Needs assessment*: the evaluation of current housing stock and future housing needs in relation to the suitability and appropriateness of current housing and demographic patterns and cultural traditions, and also involving consultation with community members, the assessment of available local construction skills, etc.;
2. *Development and design*: design of houses and the overall built environment in combination with cultural needs, site planning, infrastructure development, etc.;
3. *Implementation*: procurement of materials and labour, construction, project management, the use of local skills and management, links with social and physical infrastructure etc.; and
4. *Post-construction*: development of systems for on-going maintenance, management and rent collection, post-occupancy evaluation, future planning, etc.

The second dimension of the matrix includes six elements that must be considered at each of these stages:

5. *Funding*: sources of funding and the availability of funds at appropriate times, funding cycles, links to other sources of funds, costs of materials, transport and labour, accountability measures, etc.;
6. *Skills development and training*: developing Indigenous community skills in technical and construction areas as well as management and clerical skills, and accountability for funding;
7. *Technology*: the use of appropriate and innovative materials and construction techniques in terms of climate, cultural values, levels and kinds of skills required, and access to transport and support infrastructure;
8. *Organisation*: governance issues related to the roles of Commonwealth, State/Territory and local community agencies as well as the private sector, co-ordination amongst agencies, the skill level and resources of ICHO staff, etc.;
9. *Cultural factors*: family and household relationships, domiciliary behaviour, relationships of housing and living to other activities, gender relationships, social mobility and spiritual and social concerns about housing, approaches to consultation, etc.; and
10. *Hard and soft infrastructure*: housing and build environment infrastructure such as electricity, water, sewerage systems, landscaped open space, post and telecommunications, social services, transport and related access issues, health, education, welfare, retail and business services, etc.

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<sup>151</sup> Haar, P. (2003) Community building and housing process: Context for self-help housing, in Memmott, P. ed., *Take 2: Housing Design in Indigenous Australia*, Royal Australian Institute of Architects, Canberra, p. 91.

<sup>152</sup> *Ibid*, p. 96.

<sup>153</sup> Minnery, J. et al (2000), *op. cit.*



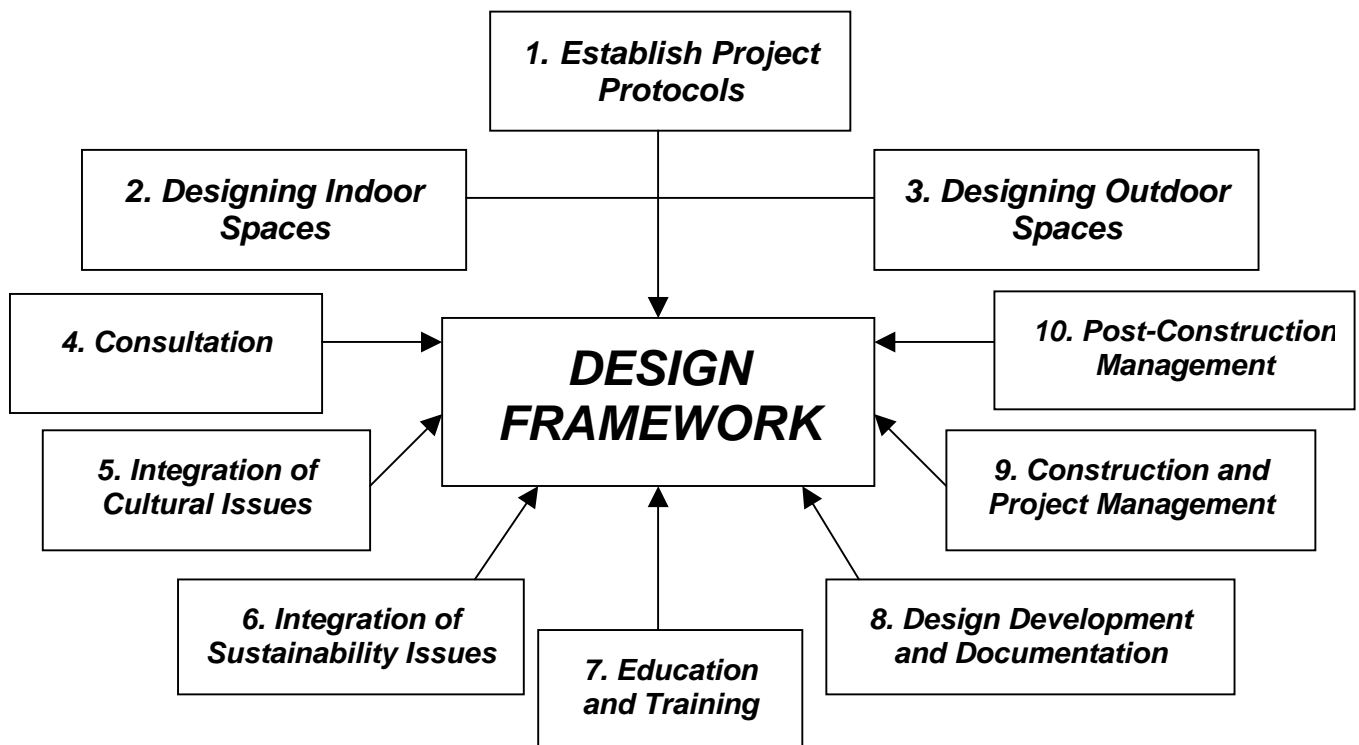
Minnery et al. placed these ten elements of effective design practice into a matrix based upon the two major dimensions to propose a best practice model for Indigenous housing in remote communities. Figure 2 illustrates the structure of this matrix while Annex 5 contains the sixty detailed elements proposed to fill the cells in the matrix.

**Figure 2: Matrix of best practice in remote area Indigenous housing<sup>154</sup>**

Stage	Component					
	Funding	Skills	Technology	Organisation	Cultural Factors	Infrastructure
Needs Assessment						
Design and Development						
Implementation & Construction						
Post-Construction						

This model has proven very appropriate in the evaluation of case studies of design practice and processes for developing the built environment in Indigenous communities in Australia, Canada and the USA. However, while it identifies the various and many elements that need to be considered, sixty detailed elements across a two-dimensional matrix is perhaps too complex to be used in the practical tasks of consultation, design, procurement and delivery of Indigenous housing in remote areas. As a result, the ten major components in the two dimensions may serve as a more useful framework. These ideas were tested in the interviews with experienced architects, State and Territory housing agencies, and the managers of ICHOs in the three case study communities and used to develop a (modified) draft ten-point Framework for Effective Design Practice for Remote Area Indigenous Housing. See Figure 3.

**Figure 3: The ten processes in the draft design framework**



<sup>154</sup> Minnery, J. et al (2000) *op. cit.*, p. 247.

The framework reflects the definition of design provided in section 1.3.3 as being a complex process that begins with initial discussions about aspirations for a building project, and the feasibility of them, and extends through various and multiple stages of consultation with clients, drawing and revising concept and detailed plans, responding to quantity surveyors' reports and cost estimates, specifying materials and fittings, project planning, construction management, developing a maintenance schedule and post-occupancy evaluation. The ten processes and associated details in this framework for effective design practice are shown in Table 4.

**Table 4: The ten processes and associated details in the design framework**

1. Establish Project Protocols	<ul style="list-style-type: none"> <li>→ Meet with authorities and community representatives to determine project brief including, funding, regulations, resource needs, time frames of construction cycle and accountability requirements.</li> <li>→ Ascertain requirements of "limited portfolio designs" in the community and the degree of flexibility within these to respond to community, family and siting requirements.</li> <li>→ Determine availability of a local person to work as a partner in all consultation and construction phases.</li> <li>→ Establish a process of regular communication and consultation through all ten phases.</li> </ul>
2. Integration of Cultural Issues	<ul style="list-style-type: none"> <li>→ Identify and collaborate with the local community in building local knowledge of the identity, place, history and culture of the specific client group, including avoidance practices and the need for surveillance/sight lines.</li> <li>→ Review relevant lessons from how responsiveness to cultural issues has been integrated into the design of housing in the community and, where appropriate, elsewhere.</li> <li>→ Consider how these can be accommodated through the design of internal and external spaces.</li> </ul>
3. Internal Spaces	<ul style="list-style-type: none"> <li>→ Identify the numbers, age and gender of family members who will be using the house, including considerations of extended family obligations and household mobility for different lengths of time and in different seasons season.</li> <li>→ Determine internal circulation and functional relationships (room sizes, allocation of wet areas, bedroom and kitchen spaces, storage requirements) according to number, age, gender and seasonal mobility of family members.</li> <li>→ This may include investigating any extended family or gender issues, disability issues, and access to external spaces.</li> <li>→ Integrate standards for fixtures, fittings and storage into internal detail specifications, talking account of National Indigenous Housing Guide and lessons from programs such as Fixing Houses for Better Health.</li> </ul>
4. External Spaces	<ul style="list-style-type: none"> <li>→ Determine the need for verandas, yard spaces, perimeter fences, external cooking space/s (taking account of health and safety requirements) and the use of any existing structures on the site.</li> <li>→ Integrate standards for fixtures, fittings and storage into external detail specifications, talking account of National Indigenous Housing Guide and lessons from programs such as Fixing Houses for Better Health.</li> </ul>

<p>5. Sustainability</p> <p>6. Consult on Options for Concept Design</p>	<ul style="list-style-type: none"> <li>→ Investigate the local appropriateness of sustainable building materials, the use of solar power and heating, and water supply and waste water treatment technologies</li> <li>→ Consider the siting and orientation of the house in relation to sun and breezes as well as relevant culturally responsive considerations.</li> <li>→ Find out about existing resident support services, community social services and access to public transport (if it exists).</li> <li>→ Investigate the use of local building contractors and work teams</li> <li>→ Develop concept design options.</li> <li>→ Present schematic plan options and 3-D physical models of proposal/s.</li> <li>→ Identify and confirm space needs and cultural issues and any constraints with community and household members through drawings and diagrams.</li> <li>→ Determine user response to design options and revisions to siting of building and internal and external circulation layouts</li> <li>→ Revise concept design in light of consultations</li> </ul>
<p>7. Education and Training</p>	<ul style="list-style-type: none"> <li>→ Plan for the training needs of local contractors and their teams as well as the training potential of the project for other community members in the building process.</li> </ul>
<p>8. Design Development and Documentation</p>	<ul style="list-style-type: none"> <li>→ Document the project thoroughly and organise tender bids with client.</li> <li>→ Consider possibilities of grouped tenders across houses and communities to effect economies of scale</li> </ul>
<p>9. Construction and Project Management</p>	<ul style="list-style-type: none"> <li>→ Consider seasonal and cultural timeframes in the construction schedule.</li> <li>→ Engage architects or project managers with experience in remote areas to supervise construction as part of the housing contract</li> <li>→ Provide sufficient funding for effective supervision</li> <li>→ Withhold final payment to the building contractor until the expiration of an appropriate defects liability period</li> <li>→ Establish programs to ensure local community involvement in construction and project management</li> </ul>
<p>10. Post-Construction Management</p>	<ul style="list-style-type: none"> <li>→ Determine whether education is needed for client groups regarding household technologies such as use of hot water systems, smoke alarms etc.</li> <li>→ Ensure house is entered in all relevant data bases for rent collection, maintenance planning, etc.</li> <li>→ Undertake a POE every 18 months to monitor ongoing maintenance needs, environmental health requirements, cost information and response of the building to user needs.</li> </ul>

## 5.4 Conclusion

Testing, revising and elaborating this draft ten-point framework for effective design practice in remote Indigenous housing is the focus of subsequent phases of this project. Writing this Positioning Paper represents the third phase and integrates information gathered in the first two phases from a review of the literature and interviews with families and households in the three case study communities, local housing and health officers, Indigenous community councils, relevant State/Territory and Commonwealth government officers, building companies and tradespersons, architects and project managers. The framework will be tested in two ways. First, in Phase 4, the framework will be the focus of a survey of the reactions of all those interviewed in Phase 2 to the draft framework. Second, it will be grounded in the data gathered from interviews with a representative range of householders and housing

managers in the three case study communities. It will be further revised as a result of the case studies and taken back to the communities as well as the architects, staff in State and Territory housing agencies and community housing managers who have been providing information throughout the project for final validation. The Final Report will include the findings of the survey and case study research and the revised Framework for Effective Design Practice in Remote Indigenous Housing in Australia.

# ANNEX 1

## Consultation list

South Australia Office for Indigenous Housing (Aboriginal Housing Authority), Adelaide	<a href="http://www.housingtrust.sa.gov.au">http://www.housingtrust.sa.gov.au</a>
Arup Darwin	<a href="http://www.arup.com/australasia/index.cfm">http://www.arup.com/australasia/index.cfm</a>
Aboriginal Environments Research Centre (AERC), University of Queensland	<a href="http://www.aboriginalenvironments.com">www.aboriginalenvironments.com</a>
Architectural Practice Academy, Brisbane	<a href="http://www.publicworks.qld.gov.au/about/news.cfm">www.publicworks.qld.gov.au/about/news.cfm</a>
Architects Studio, Darwin	<a href="http://www.groupgsa.com/alliances.asp?ID=1&amp;SUBID=21">http://www.groupgsa.com/alliances.asp?ID=1&amp;SUBID=21</a>
Bawinanga Aboriginal Corporation (BAC), Maningrida	<a href="http://www.maningrida.com/mac/bac.php">www.maningrida.com/mac/bac.php</a>
Brendan J Meney Architects, Alice Springs	2 Range Crs, Alice Springs, NT, 0870
Build Up Design, Darwin	PO Box 4128 Darwin, NT, 0800.
Centre for Appropriate Technology, Inc. (CAT), Alice Springs	<a href="http://www.icat.org.au">www.icat.org.au</a>
DFA Architects, Cairns	Machans Beach, Cairns, QLD, 4878.
HealthHabitat, Sydney	<a href="http://www.healthhabitat.com">www.healthhabitat.com</a>
J&B Wigley Architects and Community Planners, Melbourne	<a href="http://www.ozemail.com.au/~bwigley/jb_wigley.html">www.ozemail.com.au/~bwigley/jb_wigley.html</a>
Maningrida Council, Inc.	<a href="http://www.maningrida.nt.gov.au">www.maningrida.nt.gov.au</a>
Merrima Design, Brisbane	<a href="http://www.merrimadesign.com/">http://www.merrimadesign.com/</a>
NBC Consultants, Darwin	NBC Consultants, 1 Caryota Court, Coconut Grove NT, 0810.
Northern Territory Department of Local Government, Housing & Sport, Darwin	<a href="http://www.dcdsca.nt.gov.au/indigenous_housing">http://www.dcdsca.nt.gov.au/indigenous_housing</a>
Oodgeroo Unit, Queensland University of Technology	<a href="http://www.oodgeroo.qut.edu.au">http://www.oodgeroo.qut.edu.au</a>
Palm Island Aboriginal Shire Council	C/- Post Office; Palm Island, QLD, 4816.
Palm Island Future Directions Steering Group	<a href="http://antarqld.org.au/pdf/palmslandfuturedirections.pdf">http://antarqld.org.au/pdf/palmslandfuturedirections.pdf</a>
Paul Haar Architects	Thornbury, VIC, 3071.
PM&D Architects	326 Hay Street, Perth, WA, 6000.
Queensland Department of Public Works	<a href="http://www.publicworks.qld.gov.au">www.publicworks.qld.gov.au</a>
Queensland Department of Project Services	<a href="http://www.projects-services.qld.gov.au">www.projects-services.qld.gov.au</a>
Queensland Department of QBuild	<a href="http://www.qbuild.qld.gov.au">www.qbuild.qld.gov.au</a>
Queensland Department of Communities	<a href="http://www.communities.qld.gov.au">www.communities.qld.gov.au</a>
Queensland Department of Housing	<a href="http://www.housing.qld.gov.au">www.housing.qld.gov.au</a>
SGS Economics & Planning	<a href="http://sgs-pl.com.au">sgs-pl.com.au</a>
Susan Dugdale Architects	<a href="http://www.dugdale.com.au">http://www.dugdale.com.au</a>
Tangentyere Council, Alice Springs	<a href="http://www.tangentyere.org.au">www.tangentyere.org.au</a>

## ANNEX 2

### Interview schedule

1. What is interviewee's position and role in organization?
2. What is the policy context for Indigenous Housing in Remote Areas in the State/Territory?
3. What departments/agencies are responsible in the State/Territory?
4. What is the policy difference for remote-urban Ind. housing?
5. What are the key issues in housing for remote areas
  - Cost?
  - Health
  - Overcrowding?
6. What is the broad thinking re Ind. Housing issues in the State/Territory?
7. What role does the NIHDG play in forming policy and provision of Ind. Housing?
8. What is the process of decision making about new housing?
  - Siting
  - Responsive to family types
  - Climate
9. What is the process of decision making about maintenance to existing housing?
  - Siting
  - Responsive to family types
  - Climate
10. What are other design issues to take into account?
  - Urban design
  - Outdoor living spaces
  - Communal living spaces
11. What is the broad thinking re the future of Ind. Housing issues
12. What role does Ind. Culture play in housing design
13. Are there particular case studies of successful Ind. housing that you can point me to?

## **ANNEX 3**

### **Interview schedule – formal and informal community leaders**

1. What are the main housing issues you face in this community?
2. Are there any success stories? How did these come about?
3. What is the current planning, design and construction process for housing?
4. What are the barriers to planning, design and construction?
5. Who is responsible for provision/funding/selection/maintenance of furniture, fittings and equipment (FFE)?
6. There are lots of new trends/solutions being discussed re indigenous housing. What are the ones of most relevance to here?
  - Probes
    - Changes in funding sources and management (local/state/federal)
    - Standardised housing
    - Prefabrication
    - Project management processes
    - Training / capacity building / local employment
    - Maintenance
    - Changes in tenure arrangements
    - Ongoing research to find out how education and health are being improved by higher standard of housing

## ANNEX 4

### Interview schedule: householders

1. Why is your house located in this spot?
2. Are you happy with this location? Why/why not?
  - Probes
    - Ownership/issues
    - Proximity to family
    - Proximity to shops, school, transport, other services
    - Landscape features
    - Site lines
    - Privacy
  - Who chose the site?
3. Are you happy with the house in relation to? Why/why not?
  - Probes
    - Shade
    - Light and sunshine
    - Breezes
  - Who chose the orientation?
4. How many people generally live in your house? And how does this change across the year/seasons?
5. Can you tell us what your ideal house would be like? Why?
  - Probes
    - Size
    - Exterior building materials
    - Interior building materials
    - Windows – location and size
    - Wet spaces – bathroom – how many? Where?
    - Cooking spaces – interior and exterior
    - Toilets – how many? Where?
    - Bedrooms – how many? Where?
    - Storage – how much, what for, where? Security?
    - Veranda – what uses? Where? How big?
    - Yard – how big? Fence?



6. Shall we build it?
  - Coloured 3D “tiles” of different space units and sizes
  - Large sheet / butcher’s paper to depict yard
    - What is the most important spaces → select tiles and locate
    - Gradually build ideal house together
    - What do you want in the yard? → draw or locate trees/fireplace etc.
    - Sketch and photograph for records
7. Ideally, how would you get your furniture, fittings and equipment (FFE)?
8. Ideally, what would be the best way of getting any maintenance or repairs done?
9. Why do you like this ideal house?
10. How does your ideal house compare with your existing one?
11. What changes – perhaps small ones at first – would you like to see made to help make your existing house better? Why?
12. What changes – perhaps small ones at first – would you like to see made to the spaces between houses, the layout of the town etc? Why?
13. How would you go about getting these changes – to your house? To the community?

## ANNEX 5

### Matrix of best practice in remote area Indigenous housing<sup>155</sup>

	<i>Funding</i>	<i>Skills</i>	<i>Technology</i>	<i>Organisation</i>	<i>Cultural</i>	<i>Infrastructure</i>
Needs assessment	<ul style="list-style-type: none"> <li>→ adequate resources included in funding</li> <li>→ priorities investment in terms of needs and not of funding schemes</li> <li>→ benchmark audits</li> </ul>	<ul style="list-style-type: none"> <li>→ skills/capacity building assessed in terms of community's ability to supply and utilise them on a continuing basis</li> </ul>	<ul style="list-style-type: none"> <li>→ appropriate to culture, environment location and skills</li> <li>→ considers on-going maintenance etc. as well as current needs</li> </ul>	<ul style="list-style-type: none"> <li>→ co-ordination</li> <li>→ avoid overlaps of responsibility</li> <li>→ agency acceptable to community</li> <li>→ communication with community over options</li> </ul>	<ul style="list-style-type: none"> <li>→ clearly identified differences recognised</li> </ul>	<ul style="list-style-type: none"> <li>→ audit of needs</li> <li>→ appropriate for area, culture etc.</li> <li>→ includes skills needed to operate facilities</li> </ul>
Design and development	<ul style="list-style-type: none"> <li>→ technically adequate and addresses priority areas</li> <li>→ included in funding</li> <li>→ leveraging included</li> </ul>	<ul style="list-style-type: none"> <li>→ use of professional expertise</li> <li>→ community skills harnessed</li> </ul>	<ul style="list-style-type: none"> <li>→ innovation</li> <li>→ appropriate to culture and environment</li> </ul>	<ul style="list-style-type: none"> <li>→ organisational links to both housing and context</li> </ul>	<ul style="list-style-type: none"> <li>→ culturally appropriate</li> </ul>	<ul style="list-style-type: none"> <li>→ plans linked to housing</li> </ul>
Implementation /construction	<ul style="list-style-type: none"> <li>→ flexible funding in a longer-term framework</li> <li>→ adequate performance monitoring</li> <li>→ reinforce leveraging and different sources for different functions</li> </ul>	<ul style="list-style-type: none"> <li>→ local skills development</li> <li>→ use of local skills</li> </ul>	<ul style="list-style-type: none"> <li>→ use of local resources</li> <li>→ remoteness considered</li> <li>→ local resources</li> </ul>	<ul style="list-style-type: none"> <li>→ long-term commitment</li> <li>→ good design of agency structure</li> </ul>	<ul style="list-style-type: none"> <li>→ cultural timeframes</li> <li>→ link to cultural mores</li> </ul>	<ul style="list-style-type: none"> <li>→ phased implementation</li> <li>→ skills development</li> <li>→ issues of remoteness considered</li> </ul>

<sup>155</sup> Minnery, J. et al (2000) *op. cit.*, p. 247.

	<i>Funding</i>	<i>Skills</i>	<i>Technology</i>	<i>Organisation</i>	<i>Cultural</i>	<i>Infrastructure</i>
Post-construction	<ul style="list-style-type: none"> <li>→ adequate performance monitoring of rent collection etc.</li> <li>→ life-cycle funding sustainable in terms of operations and management initially, and then capital funding</li> <li>→ continuing accountability</li> <li>→ long-term sustainability</li> </ul>	<ul style="list-style-type: none"> <li>→ adequate management</li> <li>→ continuing improvement</li> </ul>	<ul style="list-style-type: none"> <li>→ low maintenance</li> <li>→ life-cycle approach</li> <li>→ sustainable environmental and social impacts</li> </ul>	<ul style="list-style-type: none"> <li>→ project management</li> <li>→ integration of local expertise</li> <li>→ skills in management</li> <li>→ on-going training</li> <li>→ payments collectable</li> <li>→ continuing accountability and responsiveness</li> </ul>	<ul style="list-style-type: none"> <li>→ community 'ownership'</li> <li>→ review in light of community values</li> </ul>	<ul style="list-style-type: none"> <li>→ community 'ownership'</li> <li>→ continuing maintenance and management</li> <li>→ sustainable environmental and social impacts</li> </ul>

## **AHURI Research Centres**

Queensland Research Centre  
RMIT-NATSEM Research Centre  
Southern Research Centre  
Swinburne-Monash Research Centre  
Sydney Research Centre  
UNSW-UWS Research Centre  
Western Australia Research Centre



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