

ATSIC HOUSING AND INFRASTRUCTURE
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Challenges in the Delivery of Healthy Housing for Remote Aboriginal Communities

House(Object) vs Housing (Process)

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INTRODUCTION

The central issue is to improve the health of people in Aboriginal Communities. Health services, health education and improved nutrition are vital, but it has been shown that the effectiveness of any programs created to address these issues is reduced if the housing fails to perform.

The main challenge, then, is to deliver housing infrastructure which promotes healthier living. Many technical issues have been addressed, although not necessarily widely implemented (refer to *Housing For Health* by Health Habitat). Viewing these technical issues as part of the overall housing delivery process will increase the chances of such technology to function properly over the long term. What is required is an awareness of housing as a process rather than the delivery of house as an object without reference to the environment of an Aboriginal Community.

This paper is a summary of some useful ideas in relation to improving the process of housing delivery. These ideas are further discussed in the NTRC's Preliminary Discussion Paper: *The Building Consultancy and Procurement Process in Remote Communities*, which will be circulated at this Workshop.

EVALUATION

Another challenge is the evaluation of any housing delivery process initiatives and their contribution to improved health. As the UPK studies show, improvements in health hardware are responsible for improved health outcomes, as measured by health statistics for eye and skin infections. And generally it could be assumed that such health statistics are going to be the yardstick by which the wider community judges our ability to deal with the problems of Aboriginal health.

Nevertheless, improved health should also be possible through improved building delivery processes in addition to improvements in health hardware, although these may be harder to measure: further, a causal link between these processes and improved health will be difficult to determine, but as an important part of self-determination, their potential contribution to health should not be discounted. Improved housing delivery processes should encompass the following areas:

- Community participation in the process
- Skills development through training
- Repairs and maintenance programs
- Community willingness to take charge of the process
- Sustainability of any course of action

These aspects of housing delivery are being talked about extensively and there appears to be a growing demand from Aboriginal Communities and Aboriginal Organisations to address them.

Do our management systems, our bureaucracies and our building industry foster the development of the above aspects of improved housing delivery ? And furthermore, how can this be done in ways that show real commitment rather than mere lip service? Achieving these is problematic - talking about it and wanting it to happen, although vitally important, are not enough. Our bureaucracies and management systems must take a leadership role in promoting these aspects of improved delivery. Whether or not a direct causal link between improved housing delivery processes and improved health of Aboriginal people can be definitively proven by statistics, the current approach of housing as an object must be rejected. We won't know the extent of the contribution to health in Communities by improved housing delivery processes unless they are implemented.

ACHIEVING HEALTHIER HOUSING THROUGH IMPROVED DELIVERY PROCESSES

To achieve the outcomes mentioned above, a number of challenges to the way housing is currently being developed must be met:

Design Consultation

Challenge: To give Aboriginal people the information to choose the housing they require and to empower them to demand appropriate services from building consultants

- Current design process

Much of the current design process as practised by many building consultants and designers is based on the presentation of two or three standard plans to their Aboriginal clients, with minimal explanation of the layout, inclusions, materials and most importantly an understanding of how it functions. From this a choice must be made. Rejection is not an option; in order to achieve that long-held aspiration for a house, the client agrees. This is not to say that better and more thorough consultation never happens under the present circumstances: there are architects and designers who are genuinely listening to their clients and who are attempting to inform them about their choices. It is hoped that their actions influence others.

- Adequate consultation

The concept of adequate consultation is often talked about: it sounds like a desirable thing. But many building consultants feel that the presentation of standard plans is "adequate", especially for the money available to pay for the design process - usually around 4% - 5% of the total project budget. Since their Aboriginal clients are often not pleased with the finished product, the process is clearly inadequate. The statistics on the breakdown of plumbing, drainage, doors, hardware and windows; the amount of buildings abandoned as unlivable, sometimes not long after completion; the

overcrowding of extended families into spaces generally intended for four or five people; all these factors indicate that most houses built according to the three bedroom cottage model are inadequate for the Aboriginal lifestyle. Very few building consultants design for particular needs - family size, lifestyle, climate, energy usage, social relationships and cultural practices. Increasing funding of housing to reflect the true cost of thorough consultation is an option. (see below)

- Scope of work

Even though standard plans are mostly used, the tender prices fluctuate due to building industry cycles especially with regard to the amount of building work available in towns and cities rather than remote areas. Often the designer reduces the scope of works without consultation with the clients, who may have an expectation about the finished product.

- Housing Plans

The idea of co-ordinated housing plans for communities are good ideas with long-term potential benefits, if put into practice. Housing Plans can be a powerful tool for Communities to direct activities, funding and development and to plan for future growth. If Housing Plans become widely adopted, they could be the expected framework within which development must occur: agreed ideas are followed by different designers working in Communities at different times, on different types of building. The main dangers are that a Housing Plan is prepared too hastily and without adequate consultation, and that it ends up filed and forgotten, especially if there is a change of Council or Community Advisor. Perhaps the adherence to Housing Plans could be linked to funding of infrastructure.

- Training programs

With current design practice there is no scope for design consultation which promotes the involvement of Community labour or training programs in the construction phase.

Appropriate Building Technologies

Challenge: To encourage the development and use of building technologies which perform acceptably in Aboriginal Community environments, which reduce reliance on outside contractors and retain money within Communities

- Skill levels and participation

The conventional mainstream mode of building is based on a highly skilled workforce who have undergone years of training to achieve the standard of finish demanded. Many of our building materials and systems exclude the semi- or unskilled worker from core activities in the building process. It is important to adopt ways of building that are more readily matched to the range of skills found in Communities, that are capable of being readily taught and are more likely to be adopted by Community workers.

- Local Materials

Many of the materials used in Community housing are imported from distant places, often the capital cities. The cost implications are enormous. A better solution is to develop technologies that use local materials, such as mud brick or rammed earth, and use the money saved to plough back into Communities by employing labour either directly or indirectly or under training programs.

- Maintainability

Because housing is delivered without participation by members of Communities, the members do not participate in housing maintenance. The use of materials matched to Community skill levels where possible will encourage occupants to take a greater role in the maintenance of their houses, if there is access to tools and money for necessary materials.

- Specification of appropriate hardware

The UPK work highlighted improved approaches to health hardware. The NTRC will be doing further work in surveying proprietary fittings (such as taps, door and window hardware, stoves, solar water heating systems, lighting systems for example) with the aim of producing specifications of appropriate brands and models which are capable of performing in Community environments. The NTRC is also developing improved hardware products.

Funding

Challenge: To coordinate and tailor funding programs for housing coherently so that Communities get what they need rather than what funding will allow.

- Limitations of current funding

Funding of housing is based on the three or four bedroom cottage model and the need to build a certain number of house units per year. Minimal funding is available for the design phase; the cheapest materials are chosen; life-cycle costing is ignored; energy efficiency is not considered; thermal comfort is not encouraged (and almost actively discouraged); repairability and maintainability is not a priority, being a Council or Housing Organisation responsibility. In other words, the current funding arrangements for Aboriginal Housing are the cause of many of the associated problems and of ongoing expenditure.

- Funding of design phase

As referred to above, design is currently costed at 4%-5% of the project cost. Architects working with Communities on the basis of thorough consultation are reporting that their time expenditure on projects reflects a design cost of 8%-9%. It takes time to ascertain what a client really wants their housing to be and this is discouraged by the lack of funds available for design.

- Funding which encourages participation

Money allocated for the construction of a house is based on a usual construction time of up to 15 weeks, a fixed lump-sum price and a certain standard of finish.

Contractors are reluctant to commit to the employment of local labour because of the variables of quality and productivity. This pressure to complete prohibits Community involvement when time and time-based overheads could be more than doubled. An option is to increase the budget for housing if Community labour is employed; furthermore, a contractor employing local labour could be given flexibility of completion date. Another important point is that if Communities are to take charge of the building process by acting as owner-builders, and employ their own people on construction projects at award wages instead of using contractors, then conventional budgets will be inadequate. This is a major obstacle to participation.

- Funding of design consultation for CDEP and DEET programs

Increasing amounts of building work (mainly renovation of derelict buildings) in Communities is being done under training programs funded by DEET and CDEP. Usually there is no funding for design at all; any design decisions are usually made by the CDEP co-ordinator (probably not qualified to do this). The result could be a building that no-one wants to use. There must be some mechanism whereby design consultation could be funded for these type of projects.

- Funding of repairs and maintenance

Communities are responsible for collecting rents and using the rent money to pay for repairs and maintenance. Rents do not cover the repair bill in many cases; collecting rent is itself problematic, especially with a floating population. Community service charges levied on each Community resident are being investigated by some Communities. However, it may be a better course of action to set aside funds for repairs and maintenance at the time of release of funds for building. This money could be used to set up and train a Community maintenance team.

- Funding of labour component by DEET

DEET is potentially a major player in housing delivery, by providing training wages for Community workers on housing projects. But should DEET be the main avenue for building procurement by Community participation? In this case DEET program funding cuts would not only kill the training side, it could mean the end of Community involvement. Budgets for building should be increased to allow for the ambience of building using Community labour in a training situation.

- Funding to allow for life-cycle costing

It would be a radical thing if Aboriginal housing was funded on a life-cycle costing basis whereby energy efficiency, thermal comfort and maintenance costs were factored into housing budgets. It would be even more radical if designers were obligated to design for these ideas.

- Coordination of separate funding arrangements

Where several organisations or government bodies are funding different aspects of the same construction project, there may be conflicting aims or bureaucratic restrictions on the process. Since this is becoming more common, guidelines for coordination need development.

Contractual Arrangements

Challenge: To create management systems and contract documents which promote Community participation in the building process.

- Standard building contract

For reasons stated previously, standard building contracts do not readily promote participation.

- Standard contract with Community Labour Fund

This is an attempt to modify the standard contract by forcing contractors to set aside a proportion of the contract sum to employ local people. In principle, this is positive; however we have heard reports where this money is paid as “sit-down” money so that local people get out of the contractor’s way. Administrative procedures may have to be put in place to prevent this from happening.

- Standard contract with Community as sub-contractor

There is scope for Communities with skills to act as sub-contractors on their own buildings, doing trades such as painting, metalwork and concrete work. A contractor would have to be very flexible in this case; the contractor would be responsible for the Community sub-contractor’s performance.

- Standard contract with Community as separate contractor

In this case, the Contractor takes no responsibility for work done by the Community, and can claim extension of time and escalation costs if the Community takes its time.

- Community as owner-builder

This is a direction that Communities could aim for, if self-determination and empowerment is desired. The long-term benefits are enormous, as are the implications for funding. A project manager may have to be engaged to assist the Community in this way of building until the Community developed its own management expertise.

- Housing delivery by training program

This will not fit the standard contractor mould; again, this is best done under a project management contract, or by a Community acting as owner-builder.

Community Commitment

Challenge: to take responsibility for the housing delivery process

- Community education about the housing delivery process

Communities have become used to not having control over the housing process. Just because it is desirable for Communities to be empowered to take charge of the process doesn't necessarily mean that a changed approach will be successful or that Communities will understand their new role. Education and information are important components.

- Commitment

Communities must be committed to the process, especially when Community members are participating in construction. Without Communities full and on-going commitment (both Council and members) the process will fail.

- Payment

An obstacle to Communities taking charge of housing delivery is the necessity to pay Community workers award rates of pay, often on an hourly rate. Many Community workers will not participate in the process in any other way. But if local people become involved in building in their Communities on little or no pay, the money available for building could be spread further, creating much needed Community facilities. This is an education challenge that could be incorporated into the consultation process. In an owner-builder situation for example, it could be explained that the budget allocation for two houses could be extended to build three or four houses if the labour was volunteered free of charge. The Community could then make an informed choice.

- Aspirations

Many Aboriginal people aspire to housing designed for the typical Western nuclear family in temperate climates. This aspiration for what represents in many cases a culturally foreign lifestyle is creating many problems. This aspiration is continually being reinforced by the current method of design consultation. Education and information as part of a thorough consultation process may address this issue and highlight a range of alternative, culturally appropriate solutions.

3 CASE STUDIES

Mulga Bore (Akaye)

A small outstation Community obtained a grant to build a new house, the first building to be built there in many years. In addition, the Community wanted to relocate four existing, but abandoned buildings. Funding was not available for this work. After consultation with the Architect, the Community decided to split the housing grant, with some funds going towards relocating the four unused shelters and the scope of works on the house reduced. The budget for the renovation was very tight at \$29,000 and the Community wanted a Labour Fund established as part of the building contract to employ local people. The house was let as a standard building contract, although later negotiations with the builder allowed for a small amount of local input and the Community has taken on the painting as a separate contract.

There was difficulty in finding a builder who would take on the task of relocating the shelters, the employment of local people being as big an obstacle as the tight budget. CAT was approached to take on the contract, a standard RAIA SBW-2.

The workers were allowed a certain flexibility in attendance since they were only paid for actual hours worked. Out of a pool of 12, generally 4 to 6 were regularly available. The project took longer and cost more than expected, although the amount spent on local labour was \$8000 instead of the agreed \$2000. There was no allowance for liquidated damages in the building contract. Working days averaged 3 to 4 per week, with 5 to 7 hours per day common.

Arrillhjere

This is a new house project for a small Aboriginal Community near Alice Springs, currently in the planning stage and about to commence construction. CAT is the Construction Manager.

The project is Community-driven, with the intention of acting as a demonstration of:

- Local Materials - mud brick walls, rammed earth footings and floors
- Solar electric RAPS system without generator backup
- Dry toilet
- Greywater collection and re-use
- Sustainable lifestyle
- Permaculture arid zone gardening
- Building for the climate

The project is also attempting to show that by using local materials, with Aboriginal workers on training programs and a system of project management, that a larger, more appropriate building costing \$140,000 to \$160,000 could be built for a standard budget of \$120,000, with a wider range of outcomes than a standard house. The figure of \$160,000 was obtained from a local building contractor, based on concrete block or mud bricks supplied by the Community. If a team of workers were to be paid award wages, then the cost would more likely resemble those quoted by the building contractor.

Alparrinya Apungalindum Aboriginal Corporation

Another project in the planning stage; incorporating the construction of three houses using Community labour. The Community is highly motivated and would like to carry out as much of the construction and supervision as possible, with CAT as the construction manager and trainer. DEET will be funding up to 20 Community workers from 50% to 100% of their wages for a period of up to 39 weeks. The Aboriginal Development Unit of the NT Department of Education will be funding the wages of one of the Community workers for his role as supervisor-in-training.