

# ourplace

Number 24

Cooking Outdoors  
Water equipment breakdown  
Reflections on a Housing Project,  
seven years on

## BUSH TECHS

- Managing liquid fuel risk
- How to get a wheelchair
- Maintaining roads

## CAT COURSES IN REMOTE COMMUNITIES 2005



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Front Cover

*Mulga Bore women use Bushlight resources to discuss and choose their energy service options.*  
Photograph by Susan Graham, Bushlight.

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Number 24



Narelle Jones

Everyone working and living in remote communities has an idea of the improvements that they would like to see in their community. Whether a long-term plan stretching back to the Eighties, a desire for twenty-four hour power or simply a better fridge or a place to cook outdoors, we all have aspirations. This edition of Our Place talks about the ambitions of Indigenous people in different locations across the country and shows what they are doing, with the help of technology, to achieve those goals.

In this edition of the magazine I would also like to introduce Narelle Jones, new

Publications Officer at CAT and the person who will be producing the magazine starting with this edition. Narelle brings extensive skills and experience in the production of a range of materials, including publications. She has worked in WA, Queensland and the Northern Territory as well as Germany and Fiji. Welcome Narelle, it is great to have you with us!

At the same time, I wish to thank Kathie Rea for her fantastic work as Editor of Our Place over the last two years and for bringing such insight to the diverse subjects covered by the magazine. Kathie has commenced work on a research project being managed by CAT for the Desert Knowledge Cooperative Research Centre that will no doubt feature in these pages in the coming editions.

Steve Fisher, Chief Operating Officer

## Our Place

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# Looking after our country our way

Magdalene, Veronica and Pamela Lynch are traditional owners who are keen to share their experience of moving back to country to Apmwarre, Ngwarle Untyeye Altyerre (corkwood dreaming country) at Black Tank, 80 kms north-west of Alice Springs. Magdalene and Pamela talked about setting up their small community and their aspirations for the future, when CAT Chairman James Bray and staff participated in a cultural awareness day with some visitors to Apmwarre.



**Pamela** Our family worked at Yamba Station and lived here. In the welfare days we were put in housing in Alice Springs.

**Magdalene** In the welfare days our parents were told don't speak the language. Arrernte was their first language.

**Pamela** We were pushed that we shouldn't speak language in Alice Springs; that we should speak English. For some of us English became our first language. Magdalene kept the language.

**Magdalene** It was hard for me to learn another language – English – and get by at school.

*(Magdalene and Pamela completed 7th grade at Our Lady of Sacred Heart in Alice Springs. Later, under the Land Rights Act, Aboriginal people were able to claim traditional country but they had to prove they belonged.)*

**Pamela** When *(land rights started)* we didn't know our traditional country was here. Then Dad said 'we got to go back home, our home out bush'. The Central Land Council helped. But most of our families couldn't move out. Had to have traditional knowledge; Land Council had to know stories, law, dance. But we knew which was our country.

**Pamela** In 1985 we had handover, Sandy Bore and Black Tank. Minister for Aboriginal Affairs Robert Tickner gave our country back. Tin sheds were built. CAT put up pit toilets and ablution blocks, which are still here today.

We were living in tin sheds because once we moved out here no-one cared about our housing. So people moved back to Alice Springs. The attitude then was 'you've got your land, what more do you want'.

We have to compete with Alice Springs for housing. We're not called a remote area. If we were in the out-of-town zone, then we would compete with communities. Our zone is Alice Springs, for urban communities, but we are a remote community so left out of lots of applications.

We own this country. This is our right to be here. As traditional owners we got to be here. For our children, it's their job to look after country. We can't bring all the kids out because there's not enough housing.

We got sacred sites to look after, sites of significance. One thing Aboriginal people have been lacking in, is not looking after sacred sites and sites of significance by getting them registered *(with Aboriginal Areas Protection Authority)*. We've got eight sacred sites on our block; only one is registered. Land belongs to people; people belong to the land.

Young people are taking part in their traditional responsibilities, like going to initiation ceremonies. We go to support them. We have to go to different communities. We have many problems with transport and keeping up food supplies.

We need young people to maintain bores, maintain the powerhouse, fencing, and understanding the need to fence



*Magdalene (left) and Pamela Lynch.*

sacred sites. Sites are being destroyed by cattle. Traditional owner can't go into a sacred site without his caretaker.

**Can CDEP (Community Development Employment Program) help?**

Pamela CDEP can be helping you to look after the bores or fixing up something broken but we don't have CDEP to look after sacred sites. They don't look at what people need. Our needs are important. It would be good if CDEP could make equipment available for looking after sacred sites.

We want white people to understand that we need to come home. We have been living away from home too long. We now need to come back home to expand ourselves.

**Magdalene** We need to get our people back from town, less trouble than in town.

**Pamela** We're happy we have CDEP places but we need jobs, to share our work. Young people go into town. To bring them back we need transport *(so they can travel)*.

CDEP is important. It is a form of income for people. With many grants, when you apply, you're expected to provide volunteers. It's OK to pay a white man, a contractor who comes out from town. But it's not OK for us to use grant money to top up CDEP and provide incentives for our young people. Will we be volunteering for the rest of our lives?

**Why have you entered the Tidy Towns competition?**

**Pamela** To boost our feeling. We can show we're at home, looking after our country, our community, our bores, power, garden, putting up fences; making sure young people know their responsibilities.

We are making a presentation to the Tidy Towns seminar called 'looking after our country our way'. We want to show people we can do it if we've got materials and equipment.

**What do you want to see in the future?**

**Pamela** We want to boost the population in Black Tank. We want our families back. We want our sites of significance fenced. u

## BUSH LIFE

We want to show others what we have done. This would make us a better people to show people from interstate around our sites of significance.

There was a protest camp on the highway, to get the country back. Many people stopped, talked and signed petitions. People can come here now and see what we have done.

I did School of the Air with my two children, Sheridan and Albert, in a tin shed; 40 degree heat on some days; tutored them myself.

**Magdalene** We have same family tree with people at Sandy Bore. We could have school together. Need to have 12 kids to set up school. They said we didn't have enough.

Bus from Yipirinya School picks up primary school age kids from Corkwood Bore, Sandy Bore, Second Creek and Black Tank each day.

Congress is to visit every three weeks but often we miss a visit. They say we are too small for a health clinic.

I trained to be an Aboriginal Health Worker at Congress. I work all around at other communities but not in my home community. If we had a clinic area, I could see people here and from Sandy Bore.

We're traditional owners because we are our father's children. Our children are the caretakers, the custodians; they look after our country for us, not only country, all to do with it.

**Pamela** We want to get full-time employment for our kids. We want to start our kids as rangers. Eight people are doing certificates in Conservation and Land Management with Batchelor Institute. We have completed one block on site here. Rangers came from Tenant Creek to do the block with us.

We need certificates to become rangers. Once we finish our certificates, we will launch our ranger program. We can set up a site for people to come in and share our place with us; make our own enterprise.

In April we start our program 'Looking after our Country our Way'. The Central Land Council helped us with an application and we have funds from Australian Government Envirofund. We will fix our boundary fence in areas where cattle have broken it down, and plant 300 trees to replace trees the bullocks destroyed. ●

The Lynch family welcome groups for cultural awareness visits. For more information, contact Ingkerreke Homelands Resource Services on 08 8952 8788.

VISITORS ARE INVITED TO BRING AND PLANT A TREE.

Story and photographs by Kathie Rea

## A shelter provides more than just shade



*Insert – Left to right: James Stafford, James Dixon, Jon Veverbrants*



Recently, lecturers Jon Veverbrants and Ronald Dodd undertook a training program at Laramba, a community approximately 200 km northwest of Alice Springs. The training was centred on constructing a bough shelter but this was only one of the many benefits the community received. Rodney Tjapaltjarri from Laramba says this about the CAT training, "I love job and training, good feeling and I like to learn doing things, welding poles and cutting steel. These skills are really important and I am really proud doing this kind of work."

At Laramba, the ATWORK training approach was used. ATWORK is designed to give community members practical skills in construction, using local material to solve a problem that the people have identified in their community. The men decided that the community lacked a shady area to conduct meetings. The program provided many benefits to the community, including:

- The re-use of material from the landfill: Many of the materials used for the project were taken from the community landfill
- Practical experience in design: The men worked with lecturers to design the bough shelter with the materials available
- Training in welding and construction for the men within the community. They have completed units in General Construction
- Experience in planning: The community selected the most suitable area for the shelter within the community

- Pride and confidence for men who took part in building the bough shelter
- Team work and community spirit: The training was based around group learning with the men, Rodney Tjapaltjarri says, "We work together, as a team. That is important."
- As a new shady spot for meetings.

From an education and training perspective, this type of work provides practical skills to help people help themselves. From a waste management and economics perspective, it provides some viable options for re-using local materials within the community rather than buying materials. But perhaps the most important perspective is taken from the men who took part in the training. The new bough shelter at Laramba is not just a shady spot to sit under during the hot summer days, but a shelter that the community can feel proud of.



*Left to right: Gabriel Andrews, Richard Campbell, James Dixon, Ronald Dodd and Casey Nelson.*

# Croc Festival 04

Fun, participation and learning in the form of edutainment, was the attraction at the annual Croc Festival, recently held in Alice Springs on 26th – 29th October 2004

It was a celebration of youth culture; bringing together Indigenous and non-Indigenous students from remote schools to learn, listen, participate and perform in a spirit of reconciliation. The four-day event involved performing arts, sports, careers markets and health expos. The Croc Festival aims to prevent youth drug, alcohol and tobacco abuse.

CAT contributed a major part in organising and coordinating the 'Croc Future Skills' event in which the students had a chance to 'try out their skills'.

The event was a great success. Over 200 students were given a hands-on introduction to various trades and occupations, through short learning activities. This provided an opportunity to learn more about various occupations by learning some of the skills used in particular jobs.

CAT, with help from Tangentyere Land-

care Nursery, Deadly Mob Internet Café and CAAMA Shop, ran trade workshops in:

- Automotive
- Welding
- Tiling
- Carpentry
- Retail
- Computers
- Horticulture.

'Footprints Forwards' also provided information for anybody who was interested in any other future career.

Apart from the great fun and good times to be had by those attending, the Croc Festivals offer a forum for promoting career options to youth in remote areas, for helping young people develop confidence and self esteem, and for giving students a reason to be excited about coming to school.



*Carpentry Workshop*



*Welding*

## CAT's *Our Place Radio* Wins National Award



CAT's *Our Place Radio* produced by Adrian Shaw has won a CBAA award for its contribution to Indigenous Broadcasting through 8KIN, CAAMA Radio Station. The winning *Our Place* stories explore the relationship between the Wirrapunda and McColl family in three parts:

The first segment describes the role of a traditional ranger, Moses, looking after his country at Dhurruputjpi. It discusses the current threats to environment in Arnhem Land: cane toads, buffaloes, etc.

The second segment is about the reconciliation process of the two families, the Wirrapunda family of Dhurruputjpi homelands in Arnhem Land and the McColl Family of Victoria. It explores the exchange of knowledge and skills across their cultures.

The final segment is a continuation of the reconciliation process between the families and looks at what reconciliation means in practice. It also discusses the development of a foundation 'One Voice, One Mob,' to raise funds for the Dhurruputjpi community.

Adrian Shaw deserves many congratulations for the success of *Our Place Radio* and these thought provoking and sensitive pieces. But as he modestly says, "The openness of the Wirrapunda and McColl families to share their story is what won the award".



# Community planning to deliver better outcomes

## Bushlight completes its second year

After a busy and successful second year, Bushlight has passed the halfway point of the four year Project. Many remote communities now have reliable, 24-hour power for the first time. This has been possible through a combination of getting out and meeting people in communities and then providing high-quality systems that meet their needs.

James Bray, Chairman of CAT's Board, describes how this happens. "Many people have never experienced reliable energy services before. For them, the basics of a refrigerator, some lights, and some fans add up to one of these important steps (to create happy, safe communities). The life-changing effect can be noticed straight away. For me, one highlight of the year has been seeing for myself the ways in which community members have used their Bushlight system as a basis for other activities that support their desire to live happily and safely in their community."

## Making the most of the opportunity

Bushlight regional staff have visited over 440 remote communities. We have worked with 51 of these communities to develop detailed energy plans and have installed over 30 household RE (renewable energy) systems across central and northern Australia (see the map next page).

Reliable 24 hour power is enabling communities to realise their plans to establish enterprises, such as the provision of environmental and cultural tourism experiences, the production and selling of art and cultural artefacts, or the expansion of nurseries. (See Dingo Spring and Birri Williams story on page 8).

Bushlight is developing a network of qualified service contractors to maintain and repair Bushlight RE systems. To broaden the network and increase its sustainability, we are working with the Business Council for Sustainable Energy to enable experienced contractors to obtain RE accreditation through recognition of prior work and learning.

The installation and maintenance of



*Women at Mulga Bore use Bushlight materials to help plan their energy services.*

Bushlight Systems will provide ongoing commercial opportunities for the service network. (Details of Bushlight procurement and system install tenders appear on Bushlight's website [www.bushlight.org.au](http://www.bushlight.org.au)).

## Regional relationships

Before we started working with communities, Bushlight established working relationships with our regional stakeholders, including Regional Councils, community councils and community resource or support agencies.

There are thirteen ATSIC Regional Councils in Bushlight's area of operation. Eleven of these have elected to participate

in the project and signed Memorandums of Understanding.

In consultation with Regional Councils, and based on the outcomes of visits to outstation communities and discussions with other regional stakeholders, Bushlight developed Regional Energy Plans. The plans are consistent with, and contribute to, existing homeland policies and regional plans.

These Regional Energy Plans provide Bushlight, Regional Councils and staff of the Department of Family and Community Services with an integrated plan for the improvement of energy services throughout the region.



www.bushlight.org.au

Wulumunjur residents laying the slab during the installation of their Bushlight RE System.

### Managing our information

Much of the information that Bushlight collects or provides to communities during the community energy planning process is stored on the Bushlight database. Details of systems installed and maintenance programs or visits are also recorded on the database.

The database is web-based and is

accessible to a wide range of project and community stakeholders. While access is carefully managed to protect sensitive and confidential information, the database will enable better collaboration between community support and service agencies and promote better integration of delivery of services to communities.



### Communities Bushlight is working with



### Renewable energy resources

To explain energy concepts and options to communities and to design and install RE systems suitable in remote environments, Bushlight has developed many products, design standards and resources. We are currently talking to RE Industry representatives and other stakeholders to see if these resources are of use to them, and if so, how we can best make them available.

### Focus for the next two years

Over the rest of the project, Bushlight will continue to work with communities to develop community energy plans and to provide renewable energy services. On average, we expect to install one system per week for the next twelve months. This will include small household systems, plus the larger community and hybrid system. The first of the larger community systems will be installed in early 2005.

Our attention will also turn to maximising the value and effect of outcomes for Indigenous people living in remote communities, and where possible to provide further 'spin-off' benefits.

## Dingo Spring

The availability of power is enabling the Kimberley community of Dingo Spring to implement their plan to re-establish the community after a period of people working away.

Plans to re-establish the community as an ancestral centre for the family are being implemented now that the community has a reliable power supply. This will continue the connection to country for the many generations of family who have lived around Dingo Spring.

Bushlight worked with residents to develop a community energy plan based on community aspirations and has installed a large household renewable energy system to meet the Dingo Springs power requirements.



## Birri Williams

At Birri Williams on Mornington Island, Qld, Johnny Williams makes a range of artefacts as a cultural activity for the younger generation and as a source of income. In Johnny's words 'Carving and making artefacts would be something that the kids could do to get them out of town. Having solar power would mean that they could keep their food cold and not spend as much on diesel.'

With the supply of continuous power, Johnny can now implement plans to expand his enterprise and build an on-site workshop/stall. Younger people, will hopefully be encouraged to visit and get involved in making artefacts now that power is available for stereos, TV and CD players.



[www.bushlight.org.au](http://www.bushlight.org.au)

For more information contact Gerry West  
at the Centre for Appropriate Technology, Alice Springs  
on 08 8951 4344 or email [gerry.west@bushlight.org.au](mailto:gerry.west@bushlight.org.au)

# Bushlight's approach to working in remote communities

Bushlight has established a process for use with homeland communities to plan and manage their energy services.

The process helps residents to choose and manage energy services that are best for them and that will help them achieve their aspirations.

We call this process the Bushlight Community Energy Planning process. Bushlight regional staff sit down with community residents and take them through this process.

Its aim is to provide residents with technical and other information so they can choose sustainable – that is, affordable, consistent and reliable – renewable energy services that will meet their current and future energy needs.

In making decisions about energy services, residents take into account the technical and financial limitations that are associated with their various energy services options.

## Bushlight's Community Energy Planning Process

It is easiest to describe Bushlight's community energy planning process if we think of it as covering five stages. Throughout each of these stages, Bushlight staff provide and collect information to support community energy services so that they are sustainable.

### Energy planning

#### Stage 1 – Prepare

Homeland communities are initially visited to establish their eligibility for the Bushlight program. Discussions are also held with community infrastructure funding agencies, Regional Councils resource agencies and Community Councils so that they have the information that they require before committing funding for energy systems. The budget available has to be taken into account by community residents when choosing energy services.

#### Stage 2 – Select

Meetings with residents are then held to identify community aspirations and development priorities, and what energy services are preferred by residents to help them achieve these aspirations.

During the discussions, information is provided to residents about the costs, benefits and limitations of different energy supply options. This enables the residents to be more confident in making decisions about their energy services. The main energy supply options are diesel generators, solar energy, gas and fire.

For communities who wish to use renewable energy, Bushlight staff help residents identify their current and future energy requirements. This information is used to design a renewable energy system that is matched to residents' energy needs and the budget available for energy services.

Each community's energy planning outcomes and service and maintenance agreements are recorded as their Community Energy Plan. A laminated, story-book copy is held in the community and a document copy is held with Bushlight.

#### Stage 3 – Install

The renewable energy system is installed when the design is complete and the supply and installation contracts are awarded. This stage includes training for community members in operating and basic maintenance of Bushlight systems. The initial stages of this training revisit information discussed in the Select Stage. This is to ensure the community has retained an understanding of basic information, before more technical aspects are discussed.

#### Stage 4 – Maintain

For the first year after the RE system is installed, Bushlight staff support community residents and Resource Agency or Council staff servicing RE systems. They visit communities regularly and provide more training sessions and technical assistance if required. The training sessions cover trouble shooting and energy management.

During each community visit, observations and issues discussed are documented in site-visit reports. These allow Bushlight to continually monitor the community situation. This information is used to fix any problems with energy services and to assess the effectiveness of, or improve, our energy planning process.

During each visit, we also download information out of the RE system itself onto a computer. This information shows us whether the system has been operating properly, or if it has any faults. The information also shows if the system is being overloaded by residents' power use. If it is being overloaded, we can show residents how to better manage their energy use to save the system and prolong its life.

At the end of the first year, Bushlight undertakes a review of the community's energy plan, including system servicing and maintenance arrangements. Amongst other information, Bushlight asks residents how things have changed for them after the RE system was installed.

The review includes:

- Assessment of residents' knowledge required to operate and maintain their energy services safely and effectively.
- Review of their access to technical support and whether the support is helpful to them.
- Assessment of the contribution of energy services to their pursuit of their livelihood aspirations.
- Assessment of the level of residents' satisfaction with renewable energy services.

Bushlight staff use this information to fix any problems residents have with their energy services and improve our Community Energy Planning process.

#### Stage 5 – Sustain

Bushlight stays in touch after the review of the Community Energy Plan to provide technical and training support as needed to community residents, resource agency or council staff and service contractors. By this stage, our goal is for residents to be largely self-reliant in managing their energy systems

Important observations and discussions along with system performance data continue to be recorded after site visits. These allow Bushlight to continue to work towards community outcomes and to monitor the level of satisfaction residents have with their energy services. ●



# Better places for outdoor cooking

Cooking outdoors with fire and smoke is an enjoyable method of food preparation. As well as proving to be an inexpensive way of cooking, fire is culturally significant and important for many Indigenous people in Australia.

Cooking outdoors allows you to cook in the fresh open air, without cockroaches, where everyone can pitch in (i.e. cooking, food procurement, wood collection, fire making) and where there is plenty of space. Many people say the best way to cook a kangaroo tail is on the coals of a fire.

## Cooking Technology: Meeting people's needs

Technologies which focus on improving householders' use of kitchens may miss the importance of people cooking on fires. Too often supply-led approaches, focussing on health and lifestyle improvements, ignore the social benefits and cultural significance of food preparation practices. Arguably, facilitating and supporting existing cooking practices is more sustainable and productive than trying to change them.

A demand-responsive approach to local demands, lifestyles and conditions is therefore most useful in supporting cooking options. Listening to communities in relation to cooking areas and providing practical options for incorporating these is particularly important. Observing and discussing current practices can also help in understanding the demands people have for the future. Practical ways of achieving demand-responsive approaches in relation to outdoor cooking areas may include:

- ensuring that different options are

presented in house construction

- incorporating an outdoor cooking area in yard design
- suggesting a woodlot when discussing community plans to provide a sustainable fuel source for the community.

Meeting consumer demand matters even more in a context where funds are scarce and local maintenance is expected. By listening, observing and providing options, real outcomes can be achieved in any service delivery field.

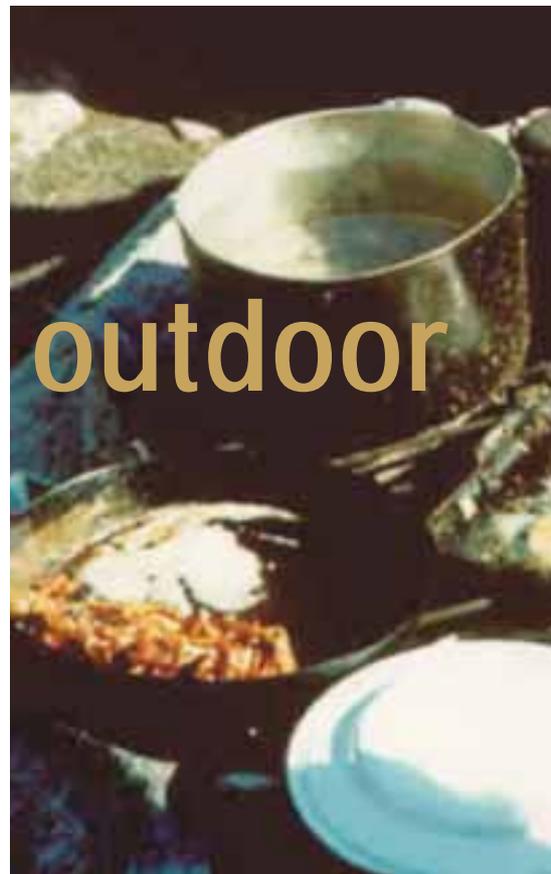
At times, shelter structures can help to improve outdoor cooking. Where a structure is considered, it is important to ensure that high quality, durable, commercial standard materials (e.g. stainless steel) and good construction methods are used. When planning, construction materials and methods as well as cultural factors should feature in the considerations. For example, constructing a windbreak from clear sheet polycarbonate can be useful where clients may want to be able to see people coming, but it may be unacceptable in situations where privacy is more important.

## Reducing risks to health

A major benefit of outdoor cooking is the reduction of environmental health risks associated with fire, smoke, dust, waste and wastewater. These aspects all relate cooking, food storage methods and food preparation in outdoor areas.

Kitchen infrastructure (food storage,

preparation areas, water) can improve health in some cases. However, uses of urban kitchen designs in Indigenous communities can expose people to other areas of contamination, such as vermin getting into stoves. Hence, poorly functioning infrastructure may pose more of a health threat than a total absence of infrastructure.





CAT's drum oven is an example of an outdoor stove that is appropriate for many Indigenous communities. In regards to health concerns the drum oven design includes the following features:

- a chimney to remove smoke from the area,
- it is off the ground
- requires minimal cleaning and maintenance and
- contains a shelf to place food on. It is important that any infrastructure provided is within the capacity of the users or local service agency to maintain.

### Store policy

A supportive store policy can help to ensure outdoor cooking is a viable option in communities. Stores which supply trays, camp ovens, barbecue plates, billy or wire racks increase options for cooking in outdoor settings.

### Sustainability of fuel

Aside from the equipment required, cooking needs a fuel source. Most outdoor cooking is undertaken using wood, although other options include gas and electric barbecues. If wood is used, a reliable and sustainable supply is necessary. One way of achieving this sustainability is through community woodlots.

A challenge with woodlots is that they require a consistent supply of water. One

way of achieving a consistent supply of water is through irrigation with greywater. Other challenges with woodlots are they require a consistent management framework, harvesting regime and take time to build up stock. But woodlots can also provide options for CDEP labour or enterprise.

### Location and environmental factors

Finally, it is important to understand the issues relevant to particular locations and environmental factors that affect cooking areas. This section provides a general overview.

#### Desert regions

The main issue for outdoor cooking in desert locations is protecting the cooking area from wind, dust, smoke, cars and public view. Some particular features that improve cooking facilities include waste removal, spaces to cook and prepare food, shady spots to sit, access to water, storage areas for food and utensils and availability of wood. Things to consider:

- Taps with drainage
- Several well located or portable wind-breaks
- Dust can be suppressed by locating the cooking place near areas of river sand or coarser pebbles
- Large boulders can limit vehicle access around house and outdoor areas
- Fire pits or low wood fired barbecues are often preferred
- Stainless bench and deep trough/sink to keep the area clean.

#### Tropical regions

The main issues for cooking outdoors in tropical environments are protecting the area from rain, prevailing winds, smoke, cars, public view and fire danger.

Things to consider:

- Wood stove on verandah – versatile and popular. Location must be considered in design, to minimise fire risk and ensure adequate ventilation for smoke to escape (e.g. higher roof over kitchen area, in-roof ventilation)
- Stand-a-lone kitchen shelter, can be enclosed or semi-enclosed, e.g. with roller doors
- Deep 70 litres trough with proper wastewater drainage (oils and fats) and draining board
- Beach sand around cooking area
- Pavilion with concrete slab, barbecue, space for earth oven and cooking in coals
- Large stainless steel bench tops
- Gas barbecue
- Lockable mesh storage, to store food and hang utensils
- Simple wall-less shelter (e.g. bough shelter) with benches
- Dry place to store wood.

### Conclusion

Outdoor cooking is essential to many remote Indigenous communities. Whilst the health risk involved should not be underestimated, it is clearly important that any remote service delivery organisation working on kitchen infrastructure and design, takes account of and supports the cultural and social importance of cooking outdoors. Minimising health risks will involve using technology, developing a supportive store policy, accessing fuel sources and understanding of the location. But these factors are less important, than listening and responding to considerations of community residents. ●

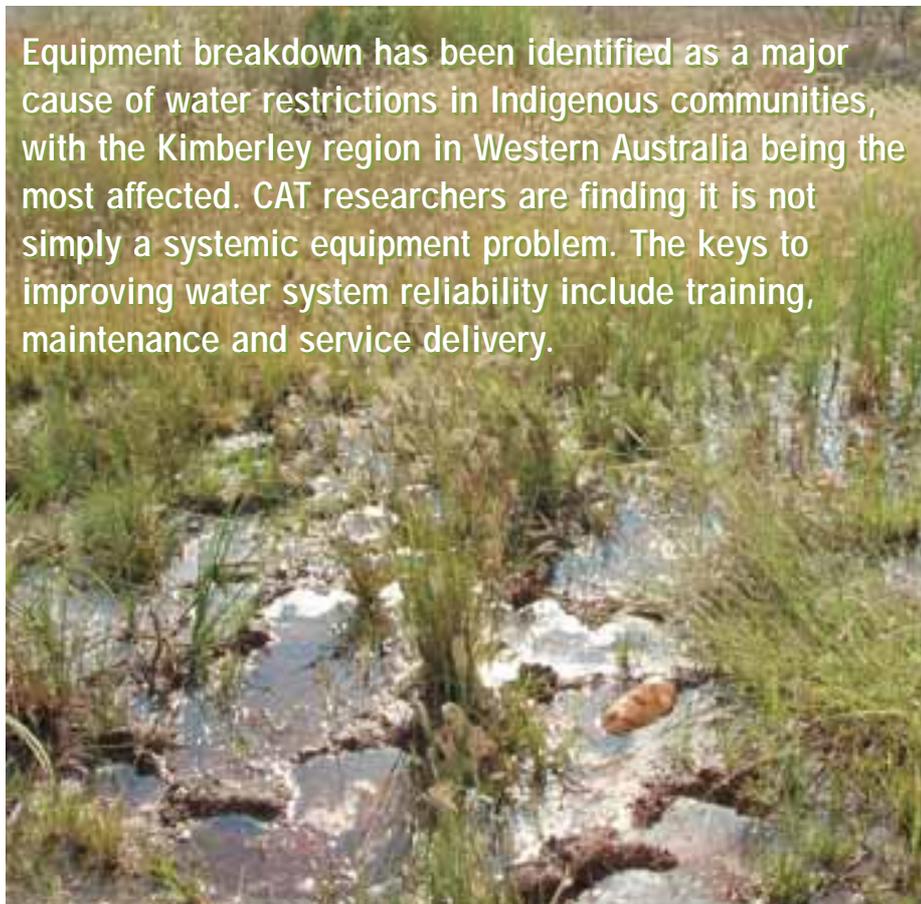
Alyson Wright

*Alyson Wright is a researcher at CAT, Alice Springs*



# Keeping water flowing in the Kimberley

Equipment breakdown has been identified as a major cause of water restrictions in Indigenous communities, with the Kimberley region in Western Australia being the most affected. CAT researchers are finding it is not simply a systemic equipment problem. The keys to improving water system reliability include training, maintenance and service delivery.



*Tank overflow creates water pools and lush grass, which draws cattle to unfenced areas. Bacteria from their excrement will seep back into the water source.*

Equipment breakdown was identified as the major cause of water restrictions according to data collected for the Community and Housing Infrastructure Needs (CHINS) Survey in 2001. Equipment failure was identified across Australia but communities in the Kimberley Region were most affected.

Research projects at CAT are looking beyond the data to develop a thorough understanding of the issues affecting water system reliability in the Kimberley.

There are 202 discrete Indigenous communities in the Kimberley region, of which 160 have a population of less than 50 people. The Kimberley region includes the ATSIC regions of Malarabah, Wunan and Kullari.

The first project undertaken by CAT and funded by the Cooperative Research Centre for Water Quality and Treatment was a telephone survey of small remote

communities across each of the ATSIC regions. Megan O'Mullane surveyed 24 small communities during December 2003 and January 2004 to determine some of the problems that Indigenous communities face accessing and maintaining a safe and reliable water supply.

CAT adopted the CHINS survey definition of 'water restrictions' – restrictions on the amount of water used, the purpose for which water could be used or the times when water was available during the previous 12 months.

The survey found that:

- The rate of water system failure in small communities is high, with 79% of communities surveyed having experienced system failure;
- The water systems installed in communities vary greatly;
- New and old systems are breaking down – 38% of water systems less than

two years old are breaking down; and

- All parts of the water supply system break down; pumps, distribution system, power, storage, treatment system.

In February, preliminary findings were presented to Kimberley people, including ATSIC Regional Council members, ATSIS representatives and Indigenous communities.

Consultation with stakeholders, together with anecdotal evidence and the survey responses, indicated that water system failure is not simply a technology and infrastructure or equipment problem. Maintenance and service delivery play important roles in water system reliability. Systemic issues that affect the reliability of water systems include the following:

- Several different parties may be responsible for a community's water system;
- It is difficult to collect reliable information regarding service and maintenance of water supply systems;
- Cross community and regional information related to water supplies could be strengthened;
- Advice is not readily available to assist decisions about funding and upgrades;
- Information about water system performance is not readily available; and
- Accountability between communities, contractors, and ATSIC representatives or resource agencies could be improved.

## More reliable water supply systems

CAT researcher Robyn Grey-Gardner developed a strategy to address the issues of service delivery, technology choice, capacity to install and maintain technology, succession of knowledge, and information sharing.

A second project, funded by Indigenous Coordination Centre in Derby is now underway; the three main aims of which are to:

1. Record information on bore system types and maintenance schedules;
2. Talk to community members about what kind of bore issues have been identified, whether maintenance has been satisfactory, and identify what measures could be put in place to enable a smooth process in the future;



Tank overflow is a maintenance issue at many communities. At Biridu, community resident Jack Macale (second from left) explains the problem to Emma Young (left), while Marc Seidel and Bronwyn Bidoli collect water samples for testing. Marc is Regional Technical Manager with CAT Derby. Bronwyn is a Fellow, under the CAT – Rio Tinto Partnership.



Poorly performing pressure valves are a frequent equipment problem.

and

- Undertake water testing at communities. CAT Derby is project manager for planned and preventative maintenance to the power and water supplies of 22 Kimberley communities. In October 2004 CAT researcher Emma Young visited a number of communities of less than 50 people in the Malarabah region of the Kimberley.

Following the data collection and discussions with communities, the technical information will be entered into a central database. A (lessons learnt) information pack is currently being developed and information collected and entered. A problem, however, identified by the project was the limited access to water bore data to be included in the database.

The communities visited in October have a maintenance program that is generally working well, and community residents participate in basic servicing. Analysis to date indicates that there is some need for further training of community residents to increase the smooth running of infrastructure, for example, easy to read checklists for running both the water bores and the associated power supply to reduce water wastage, and copies of the instructions being supplied to resource agencies to provide an additional contact point for communities in the event of difficulties arising.

Although many of the communities visited didn't have water restrictions due to system failure (except some issues with pressure valves, solar inverters and running out of diesel), there were a number of water related issues that were identified as a frequent problem. Water tank overflows, for example, were evident in nearly every community that was visited, causing issues such as:

- water wastage from bores and associated power supply not being turned off when tanks are full or when community members leave the community;
- possible health effects in areas where cattle are freely able to access the overflow areas (i.e. droppings in the overflow water can seep back through the ground into the water supply).

The project will be developing options for fixing such problems, and include for example:

- Easy to use instructions and relevant training for avoiding water wastage;
- Fixing broken tank floats to provide an early warning that a tank is becoming full;
- The need for automatic shut off switch for both solar and diesel generated systems to reduce water wastage; and
- When other options have been put in place and overflow still continues, the need for fencing around areas with cattle access to reduce possible health impacts.

Other issues that were identified in a range of communities include:

- Problems with pressure switches not working correctly on some bores;
- Tanks missing parts, such as covers on the top of tanks, cracks in tanks, and access ladders to tanks not being locked;
- Some water restrictions due to tanks being too small; and
- Equipment being stolen.

Further analysis and development of options to address the range of issues that were identified is currently being undertaken. ●

Emma Young and Kathie Rea

## References

- Australian Bureau of Statistics (2001), *Community Housing and Infrastructure Needs Survey Australia 2001, Data Dictionary*.  
Megan O'Mullane, *Water System Reliability: A Survey of Small Indigenous Communities in the Kimberley*.

## CAT Publications

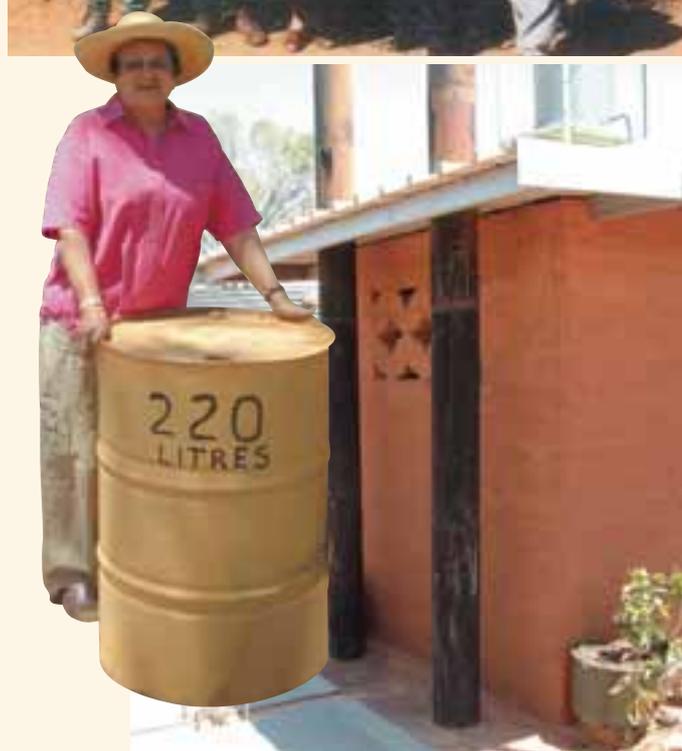
- Water System Reliability: A Survey of Small Indigenous Communities in the Kimberley* by Megan O'Mullane. The full report on the telephone survey. Meg held a summer scholarship with the Cooperative Research Centre for Water Quality and Treatment. She was supervised in this work by CAT researcher Robyn Grey-Gardner.
- BUSH TECH #21 Water bores.
- TECH POSTER #1 How to look after your bore.
- "Security of water supply and provision for communities" by Robyn Grey-Gardner, *Our Place* magazine, number 20, pages 6 and 7.

For a print copy, telephone Leesa at CAT on (08) 8951 4311, or see the water theme on the CAT website at [www.icat.org.au](http://www.icat.org.au).

# Olive's Place: Reflections on a Housing Project, seven years on



Desert Australia can be a challenging place to live; hot during the summer and cold nights in winter. Seven years ago CAT participated in a housing project with a Western Arrernte woman, Olive Peltharre Veverbrants. The primary objective of the project was to construct a house that is appropriate to Australia's arid zone.



Many important lessons emerge from this work. The Arrilhjere house has a low environmental impact, is an environmental learning centre for Indigenous people and provided meaningful training and employment for local Indigenous workers. The features of Olive's place include mud brick construction, solar energy supply, rainwater harvesting, composting toilet and passive design.

## Using renewable energy

In Olive's words, "I am living with the weather everyday". She harnesses solar energy to provide the house with power. A thermometer and solar gauges help her to make decisions on the daily operations. This system worked well but Olive wanted more power for her daily operations. In 2000 additional panels and batteries were added. The power obtained from this system now produces up to 8.8 kW of power/day which is plenty for Olive's requirements (allowing for caution on overcast days). This provides power to run general household items; fridge, freezer, washing machine, lights, ceiling fans, microwave, TV and other kitchen appliances.

## Refrigeration

'Instead of relying on eskies and ice, proper refrigeration was considered an important improvement for the house'. A gas refrigerator was chosen because of the earlier limitations in use of solar power, but this was not efficient during hot summers. Olive opted for an electric SCANDILUXE refrigerator and freezer as a replacement, on the recommendation that it uses 1/3 the power of Australian models. The size was also important; Olive wanted something large to store the food, so she didn't have to make so many trips into town.

*Photograph above left: The Opening of Olive's Place, July 1997. Left to right: Matthew Parnell, Brendan Meney, Olive Veverbrants, David Curtis, James Bray.*

## Power Requirement: Gas stove

The house has minimal running costs in comparison to Australian remote area standards. The only energy purchased is bottled LPG for the stove. No monitoring of gas use has been carried out, but an approximate evaluation showed the costs are \$350–400/year.

## Conserving water

Olive was brought up never to waste anything. She explains that this stems from her background both as an Indigenous person and her childhood spent on remote mining fields during the Depression. In her yard she keeps a 44 gallon drum, as a reminder of the small amount of water that her family used for washing, drinking, cooking, cleaning and bathing on a weekly basis.

Rainwater supplies the entire household usage. The house is connected to mains water, through a tap on the outside of the house. During the seven years, Olive has only once had to rely on town supply due to a long dry period.

The composting toilet is a two-chambered batch system that does not have water requirements. The chambers have been emptied once in the past 7 years. Olive must get a volunteer to assist her in emptying the chambers as it involves getting inside with a shovel and digging out the composted waste, so one design feature to improve the toilet is to make the chambers more easily accessible. The toilet compost is used as garden fertiliser.

## Caring for country

Olive's place doesn't stop at the edge of the wide shady verandahs. She has planted a native garden and trees, watered with greywater. The garden has bush tucker langwe and quandong, as well as an olive, Valencia orange, pink grapefruit, mulberry trees and grapevines. The trees provide a number of functions including shade, dust suppression, windbreak, soil stability as well as a food source.

Olive also works to remove weeds and foster revegetation through self-seeding native plants. She re-uses old tyres to protect new seedlings from cars, humans and animals. "Whenever you see these ironwood seedlings coming up, you're got to look after them. That's looking after country", Olive explains.

Olive also demonstrates ways to re-use and reduce waste. Food scraps are composted for the gardens. Olive sorts all her waste into different bins including tins, glass, plastic and paper. She tries to re-use as much material as possible and waste taken to landfill is compacted, i.e. she squashes the cans, tins and plastics down. Olive is creative in re-using products around her land, such as tyres for seedlings, glass bottles to make garden edges and broken china/crockery to make mosaic art pieces.

## The future

After seven years, the appropriateness and effectiveness of the technologies used at Olive's place and the overall house design can be seen through their success. Only small changes have been required, including additions to solar panels and using refrigeration. The accomplishments of the project can also be measured through Olive's own convictions, "I wouldn't live anywhere else. I love my country and my home. Most people who come out here also fall in the love with the place."

Olive was driven by her own values to of conserving resources and looking after the environment. She has put great effort into maintaining her home. CAT has provided assistance in choosing the alterations she has made at Arriljhere house. Given the



success of the Arriljhere project, any evaluation must look at why similar initiatives have not been undertaken. Such questions require lengthy analysis; the section below provides a starting point.

## Why aren't more houses on remote communities built along principles of passive design and environmental sustainability?

There is no easy answer. However, many of the explanations behind low take-up of passive design are the same for remote communities as for the urban communities. The reasons include design conservatism, higher initial construction costs and availability of relatively cheap energy supplies. It should be noted that higher initial construction costs might be reduced over time as building contractors become more familiar with the 'non-standard' designs.

Housing in Indigenous communities is already a difficult issue, with many examples of failed policies. Therefore, policy makers may be wary of complicating the problem further by using new designs that might fail or be more expensive. Furthermore, their priorities are usually driven by need to build adequate houses within budget and time constraints which can mean that residents miss out on the long term benefits that passive designs offer. As environmental sustainability becomes more widely accepted, this barrier is expected to diminish.

## Why aren't more houses on remote communities built by local people?

### Fragmented service delivery

The Arriljhere project faced a common challenge to people in remote areas; the compartmentalised nature of Indigenous service delivery. By and large, service organisations are set up to address one specific issue - housing, training, or health, etc.

However, community needs are often complex, spanning a range of areas. It can be very difficult for a community that wishes to achieve multiple goals to access funds or coordinate support from the different sources for one project. This CAT project drew on support from agencies including: ATSEC, Northern Territory Employment and Training Authority, Training Network NT, Aboriginal Development Unit, Community Development Employment Program, ABSTUDY, Tangentyere Council, among others.

Agencies must continue to strive to match their services more closely to the needs of communities. This could include: funding applications coordinated between agencies and funding conditions made more appropriate to participatory housing projects. This isn't to say that governments are making no progress – programs such as the IHANT Central Remote Regional Council Training and Employment Program are addressing these challenges – but emphasises the need for continued improvement.

### Need versus participation

The urgency of demand for Indigenous housing also presents a barrier to participatory approaches. Many Indigenous communities suffer from severe housing shortages, while many existing houses fail to provide adequate 'health hardware' facilities. Understandably, policy-makers place a priority on getting new houses on the ground as quickly and efficiently as possible. Commercial building contractors can construct a house on a remote community in around ten to twelve weeks. A participatory building process using inexperienced trainees and working in cooperation with Indigenous cultural structures can often take longer.

The Arrilhjere house was built over 78 weeks, comprising 52 weeks of actual on-site work and 26 weeks down time due to funding difficulties, cultural business, weather conditions and

experimental building techniques. In the context of overcrowding, a huge backlog in housing need and housing-related health problems, it is easy to understand the reluctance of housing agencies to prioritise participatory approaches. However, the potential wider long-term benefits of participatory construction must be considered.

### Final message

Housing is not about bricks and mortar; it's about homes for people. The Arrilhjere project offered a unique opportunity to fulfil the housing aspirations of an Indigenous person, Olive Veverbrants. The commitment, ownership, responsibility and pride she has for the house and surrounding country have been key elements in the sustainability of the house. The message in this is simple; better outcomes in housing are achieved when effort is applied to understanding what homes people desire in remote Australian communities. ●

Hannah Hueneke and Alyson Wright



## Housing technology and design

TECHNOLOGY OR DESIGN	EVALUATION	OLIVE'S TIPS
<b>Solar Panels</b> 8 Neste 120 W crystalline panels 4x4 volt Century lead acid batteries C60 regulator Selectronic 2.2 kW sine wave inverter	Extra power required (3.5 kW to 8.8 kW system) 4 Sharp 175 W monocrystalline panels 2x4 volt Century batteries	<ul style="list-style-type: none"> <li>Overcast days use limited power – not for washing or TV</li> <li>Caution – Turn off lights, fans and other electrical appliances when not being used</li> </ul>
<b>Solar Hot Water</b> Solahart 180J	Works well, with no additional changes	<ul style="list-style-type: none"> <li>3 minute showers</li> </ul>
<b>Gas Stove</b>	Power costs \$350-400 per year LPG	
<b>Refrigeration</b> Eskie/ice	Changes: Gas refrigerator Scandiluxe refrigerator and freezer	<ul style="list-style-type: none"> <li>To save power, Olive would turn the refrigerator off when using the microwave but this uses more power!</li> </ul>
<b>Rainwater Tanks</b> Settling tank 2 X 22,500 litre tanks	Works well – Only once ran out of water	<ul style="list-style-type: none"> <li>Use water conservatively</li> </ul>
<b>Greywater Re-use</b>	Provides a reliable water supply to native and vegetable garden	<ul style="list-style-type: none"> <li>Use on gardens</li> <li>Only water at dusk or morning</li> </ul>
<b>Composting Toilet</b>	Works well – Recommend change to chamber system, so you don't have to get inside to empty it	
<b>Mud Brick House &amp; Solar Passive Design</b> Roof Area: floor area of 135m <sup>2</sup> roof area of 252 m <sup>2</sup> , 1.86 times the floor area House orientation Window design Insulation	Very good condition, all help to keep the house cool in summer Additional ceiling fans and pot belly stove are used	<ul style="list-style-type: none"> <li>Using windows, open top and bottom. Warm air goes out top and cool air replaces it through the bottom</li> <li>Shut curtains depending on sun orientation</li> <li>Source all wood from on site</li> </ul>

# Policy change meets economic reality

## TOWARDS A BETTER UNDERSTANDING OF REMOTE COMMUNITY ECONOMIES

It is often the case that debates about international aid to poor countries contain some parallels with Indigenous policy in Australia. Two significant changes in the international field are a new focus on basic improvements to infrastructure as part of the United Nations Millennium Project and a solid endorsement of market-based incentives for change through the ratification of the Kyoto Protocol.

This article explores the common ground between these two developments and our own field in Australia and proposes some ways to improve the economic analysis of remote community programs.

### Getting the basics right

The United Nations Millennium Framework sets eight goals, eighteen targets and 48 indicators for international development. These include the principle goal of halving the number of people whose income is less than the equivalent of one US dollar a day by 2015.

The new Director of the Millennium Project of the United Nations, Jeffrey Sachs, argues that international aid should re-emphasise the basics of fighting malaria so that people are fit to work, building better roads so that small farmers can get their goods to market, electrification of villages and better schools, among other improvements. The principle is that these are cost-effective changes that help people help themselves (Sachs et al, 2004).

### A faith in markets

The long-awaited final approval of the Kyoto Protocol demonstrates international support for the market as a way of tackling climate change. The protocol opens a market for trading carbon that is designed to provide incentives for driving down emissions of carbon dioxide, the principle greenhouse gas (Financial Times, 2004).

So at the international level, we see a revival of the idea of investing in basic infrastructure and a new emphasis on using the market to promote change. How does this relate to Indigenous policy in Australia?

### Incentives for change

In Indigenous Australia, the closest equivalent to the Millennium Framework is 'Overcoming Indigenous Disadvantage' the report of the Productivity Commission, sometimes known as the COAG Report (Steering Committee for the Review of Government Service Provision, 2003). The report proposes three priority outcomes, twelve headline indicators and seven strategic areas for action that will tackle disadvantage.

Many communities are starting to feel the influence of the COAG and the associated whole-of-government approach designed to foster more integrated policies and programs for Indigenous people. At CAT, for example, we have been helping to support the Munjurla communities of WA in a program to set up a welding

workshop so that local people can produce robust beds for people living there. This initiative arose from meetings of people involved in the COAG trial site. Like the UN Millennium Project, the areas for action defined by COAG also focus on basic improvements, especially in education, environmental health and economic development. Thankfully the overall approach avoids the notion that the development of infrastructure, health or any other single push is enough to promote change. Interestingly, it is in the area of economic or market-based incentives that we see some emerging signs of a new approach. In particular, the words incentive and disincentive are starting to appear in policy documents on Indigenous affairs at the state and territory level (Johns, 2004).

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The most commonly-cited example of this change is the 'no school, no pool' rule applied to children in places where there is a swimming pool. In communities in Western Australia, for instance, children collect a stamped mark on their hands when they have been to school and show it again when they use the pool later in the day. So the incentive for school is to be able to use the pool. Taking this approach a step further, the Federal Government is now proposing to link welfare payments to behavioural change in other ways, such as ensuring that children are attending school and are kept clean and clothed.

## Facing the economic realities

Where internationally the market is relied upon to send 'signals' through prices that form incentives to buyers and sellers, in our setting it is the government that is linking incentives to services. So where Kyoto has led to carbon trading exchanges being established, we remain confined to a welfare economy where giving and taking away a benefit, combined with the rhetoric of rights and responsibilities, are the limits to the tools available to foster change.

But building effective policy and achieving outcomes calls for policy change that moves beyond the delivery ideology of the stick and carrot and into a more informed understanding of the economic realities of remote Indigenous communities and how people can strive towards a better livelihood in a situation that is unique in most of its characteristics.

Through our work of supporting sustainable livelihoods through appropriate technology in remote communities, CAT has observed many of these realities at first hand. Some examples are:

### **The motivation to live 'on country' and the price that people pay to do so.**

People make choices about where they live and carry the cost and benefit of those choices. Some communities pay \$2,000 for a single visit of a tradesperson to service a bore and others truck in bottled water because they are concerned about the taste and the composition of their rainwater or bore water. Living remote is expensive.

### **The contribution that the Aboriginal population in remote areas makes to the national economy and the costs of that contribution.**

According to a market survey by the Central Australia Tourist Industry Association, 78% of potential visitors to the Northern Territory perceive Central Australia to offer an 'ability to explore Indigenous culture'. (See Australia, 2000). The existence of a settlement pat-

tern across remote Australia that enables Indigenous people to maintain culture and ceremony contributes to the depth of the experience that many visitors expect from the region. Other remote areas also rate highly in the perceptions of potential visitors.

### **Features of remote communities that make the rules of liberal economies more complicated to apply than in other settings.**

This is especially the case where family obligations make the accumulation of assets difficult. Few communities can count upon enough of the elements of a traditional economy to provide a basis for trade and enterprise to take root. The accumulation of surpluses, the concept of private property and strong individual rights and responsibilities expressed through economic relationships are not common features of communities.

### **The limits to the 'big idea' approach to economic development.**

People who feel vulnerable are less likely to show interest in the kind of ambitious ideas that feature in conferences and seminars on business development in the bush. Change has to start from the point that people have reached.

In CAT's experience, communities are not slouch when it comes to seeing the potential of technology and an enterprise idea. In the last twelve months, we have been approached about fish farming in desert waterholes, promoting culture through the Internet, eco-tourism in small outstations and reviving old cattle enterprises. But even to reach the point of working out these ideas, people have to overcome the problems of poor health, literacy, confidence and gaining access to information that they can use. Big ideas have to start small.

### **Applying both supply- and demand-side analysis to community services.**

The established mode of service delivery in remote areas is determinedly supply-side. In other words, service users are passive recipients of a service that is designed largely without their participation and fixed in its characteristics.

In many respects, the COAG initiative is attempting to break down this model by inviting Indigenous people to negotiate and take responsibility for the outcomes of new service delivery arrangements. In spite of this, demand-responsive services are still in their infancy and so people in remote communities are rarely asked to express a preference or to act like a consumer.

### **The distance of markets.**

Many communities are located far from markets for labour and goods, making trading an exceptional rather than common activity. In the case of labour, the Community Development Employment

Program (CDEP) has not proven successful in enabling enough people to move into opportunities in the mainstream labour market, whether for reasons of prejudice on the part of employers or lack of engagement with job opportunities from Indigenous people.

## Practical magic; getting the analysis right

This brings us back to the UN Millennium Project. Jeffrey Sachs, the Director of the project, has stated that 'the eight goals and the eighteen targets will be the centrepiece of our analytical focus, where we will ask what is missing, what is needed, how can it be delivered, how can it be monitored, how can we be results-oriented, how can it be financed - very practical questions, because we want to get the job done.' (Sachs 2002).

If we take anything from the international debate on development, it is this; for a combination of basic improvements and incentive-based change to be effective, the analytical focus needs to be right. This means that we need to learn more about the economic practicalities and realities than are commonly understood at present. This process starts with a long-term view, productive relationships with Indigenous people living in remote locations, well-conceived research and a willingness to adapt mainstream economic thinking to the reality of the margins. ●

Steve Fisher

Chief Operating Officer at the Centre for  
Appropriate Technology,  
Alice Springs

## References

See Australia (2000) Domestic Marketing Research Project.

Sachs (2002) The Millennium Development Goals. Keynote address to the International Policy Dialogue of the German Foundation for International Development (DSE).

Financial Times (2004) Cashing in on climate change: trade in carbon credits takes off.

Johns (2004) *Romantic Aboriginal policies fail reality* in The Australian, October 2004.

Steering Committee for the Review of Government Service Provision (2003) *Overcoming Indigenous Disadvantage: Key Indicators 2003*, Productivity Commission.

Sachs et al (2004) *Ending Africa's poverty trap* Brookings Institute.

# Talking Wildlife



**N**atrass, radio host of ABC's Wildlife Talkback, has compiled a book of his most popular radio topics titled Talking Wildlife. This book explores the issues and encounters humans have with backyard wildlife in Australia – whether it be in the roof, the toilet, the backyard or the local park. The author not only draws on the experience as a talkback host, but also the experience gained as a wildlife ranger and studying science. Talking Wildlife gives detailed answers to questions that can't be given on a 25 minute radio show. Natrass also believes this book provides “a medium to help Australians better understand our interactions with native wildlife”. Though I would argue that the local knowledge of many Indigenous Australians generated over thousands of years of caring for country, is perhaps superior to this what this book has to offer.

However, Talking Wildlife is a light and fairly entertaining read, illustrated with cartoons and full colour photographs, backed by scientific research, hands-on experience and some, solid commonsense. Nevertheless, commonsense also tells me this book will be less useful for those living in remote areas than for those living in urban areas. For urban areas, it is full of practical ideas, advice and useful knowledge about wildlife getting into your roof, toilet, etc, but animals are less of a problem out bush because there is plenty of natural environment. Why would wildlife choose a populated community, in comparison to a quiet,

peaceful part of country that is rarely visited by humans? Despite this practicality (and maybe I have it wrong), this book provides a good laugh on the crazy adventures and traps that Australian wildlife get into. For that sake alone, I recommend you skim the pages, although perhaps listening to the radio program would provide more entertainment.

Ric Natrass  
TALKING WILDLIFE  
Steve Parish Publishing, \$19.95pb/audio, 128pp,  
ISBN 17402154 0

*Reviewed by Alyson Wright*

## CAT Resources

### CAT PAPERS

Wright, Alyson (2004) Heating Swimming Pools: A comparative analysis on heating swimming pools in remote communities of the NT, CAT Report, Alice Springs.

Wright, Alyson (2004) Olive's Place: Reflections on a housing project, seven years on, CAT Report, Alice Springs.

Fisher, Steve (2004) Knowing where we are going, Paper Presented at 5th Indigenous Environmental Health Conference, Terrigal, NSW.

### BUSH POSTERS

- #1 How to look after your bore
- #2 When it's time to change the oil

### BUSH TECHS

BUSH TECHS tell you what we've learnt about working with technology in remote communities.

Many are fact sheets. Some summarise emerging issues.

BUSH TECHS are published in each issue of Our Place.

- #1 Hot water
- #2 Renewable energy

- #3 Stormwater harvesting
- #4 Rainwater harvesting
- #5 Gas fittings
- #6 Carbon farming
- #7 Feasibility of gas and dual fuel
- #8 How to get a telephone
- #9 Disinfecting a rainwater tank
- #10 Creek crossings
- #11 Maintaining your air conditioner
- #12 Choosing the right door
- #13 Choosing a landfill method
- #14 Dust control
- #15 Choosing the right toilet
- #16 House warming
- #17 Landfill design
- #18 Pit toilets
- #19 Maintaining your tip
- #20 Local radio networks
- #21 Water bores
- #22 Used oil
- #23 Waterless composting toilets
- #24 Managing liquid fuel risk
- #25 How to get a wheelchair
- #26 Maintaining roads

For a free copy of a BUSH TECH or TECH POSTER, please telephone CAT on (08) 8951 4311.

IF YOU HAVE A STORY TO TELL  
CONTACT ADRIAN SHAW,  
**Our Place Radio**



Our Place Radio show is now in its fourth year. Adrian Shaw produces a 20 minute report each fortnight, which presents the voices and perspectives of Indigenous people along with commentary on a technology theme. The major themes are; Energy – Planning, Communication, Health, Housing, Water, Training and Transport.

## TUNE INTO **Our Place Radio**

*Our Place Radio* is broadcast on community radio stations across mainland Australia and in the Torres Strait Islands.

CAAMA 8KIN FM (100.5 FM), Alice Springs • Radio Larrakia (93.7 FM), Darwin • Walpiri Media, Yuendumu, NT  
6AR, Perth • Mulba Radio, Port Hedland • 6GME (99.7 FM), Broome • 6FX (936 AM), Fitzroy Crossing  
6PRK, Halls Creek • 6WR (693 AM), Kununurra • Nggaayatjarra Media, Wingellina, WA  
Gadigal Information Service (93.7 FM), Sydney • 3CR (855 AM), Melbourne • 3KND, Melbourne  
4AAA (98.9 FM), Brisbane • 4CLM (98.7 FM), Cairns • 4K1G (107.1 FM), Townsville • 4MOB (100.9 FM), Mt Isa  
5NPY Media Umuwa, Pitjantjara Lands • 5UMA (89.1 FM), Port Augusta • 5UV Radio Adelaide (101.5), Adelaide

BRACS stations in the Top End via TEABBA (Top End Aboriginal Bush Broadcasting Association); in the Pilbara and Kimberley via PAKAM (Pilbara and Kimberley Aboriginal Media Association); in the Torres Strait Islands on Moa Island, Yam Island and via TSIMA (TSI Media Association).

Other stations pick up the show via the National Indigenous Radio Service and TAPE, the Aboriginal Program Exchange.

### **Our Place Radio**

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