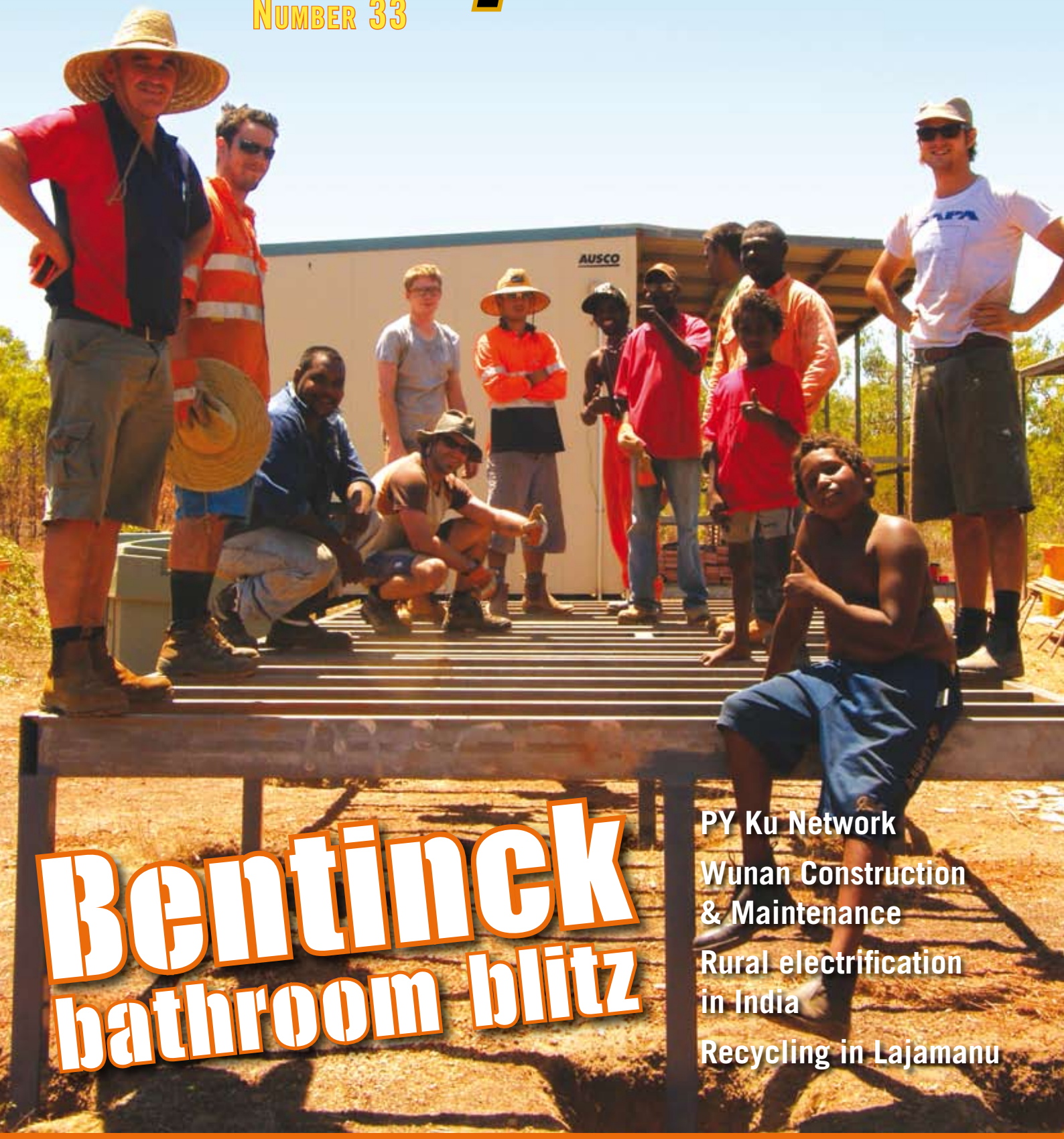
PEOPLE WORKING WITH TECHNOLOGY IN REMOTE COMMUNITIES

ourplace

NUMBER 33



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Opinions expressed in *Our Place* are those of the authors and not necessarily those of the CAT Board or staff.

WARNING: This magazine contains images of Indigenous and non-Indigenous people. Caution should be exercised while reading this magazine, as some of these images may be of deceased persons.

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Kevin Fletcher:

Essential Services Officer, Dodnun

Edited transcript of Our Place Radio Segment 13, 2008
Interview by Adrian Shaw

INTRODUCTION

For the past few years Kevin Fletcher has been living in his community of Dodnun in the west Kimberly and is employed as the Essential Services Officer.

What is the role of an Essential Services Officer? Well, basically it's about maintaining all the services that are essential in a remote community. Such as fixing the generators when they break down so people can have a consistent energy supply, and looking after the water tanks and bores, so people get clean drinking water.

Quite often it's a non-Aboriginal person who is employed as the Essential Services Officer in a remote Aboriginal community. Remote communities understand that after a period of time a non-Aboriginal person who is employed in this position may leave the community for various reasons.

The Aboriginal people who live in Dodnun decided to employ someone from their own community to be the Essential Services Officer.

KEVIN: Dodnun is on the Gibb River road, about 600 kilometres out of Derby, that's the largest town near us, and is 300 kilometres from Wyndum.
There is about 20–40 people here during the wet season, mostly families. I have been here for about five years.

We've got different groups, mainly Narrogin tribe, with all the families mixed together. They used to all live in tents here when we were kids.
We used to go on the mail plane for school and come back on mail plane for school holidays.

ADRIAN: How many houses do you have there now?

KEVIN: There are three old ones that are just for anybody who comes working here, like Kardiya, (that is white people here) they camp in them. But there are about eight liveable houses, one big shed, the service station and engine room.

ADRIAN: In the engine room there are a number of diesel generators which provide electricity for the community. When I spoke with Kevin, the community were using the small generator, as there were only about ten people in the community at that time. But when all the other families come back for ceremonies, the population of Dodnun increases to over 40 people and Kevin has to start up the largest generator.

KEVIN: There are three of them there, unit one, unit two, unit three. The biggest one is unit three, the smallest one is the unit one which I am running now because there are only about 10 people here.

ADRIAN: Apparently you need to check the flow meters too. What kind of meters are they?

KEVIN: There is a flow meter for the tank to the engine and that just shows you how many litres go in per day. Every day I check the litres of fuel. This engine is pretty good it doesn't use very much, the small one anyway. But during the wet season when everybody comes back for ceremony and things, more and more people are here. Then the big one goes on and that chews more fuel, because I suppose, everybody's got more fridges and air conditioners going.

ADRIAN: When it's ceremony time and you get more people there, tell me how busy it is and what happens then?

KEVIN: All the families come, and their extended families join them, so with a larger number of people here there is more pull on the old engine for fuel, but luckily the truck comes before all that happens.

ADRIAN: What truck is that?

KEVIN: The shell truck that fills all the tanks up. So it's good when it comes and that generator room will run during Christmas and the New Year and right through until about July.

ADRIAN: How often does that tanker visit your community?

KEVIN: Twice a year. At the beginning of the year then at the end of November. I check the main tank and check the

continues page 4 >

other engines where the slide tray is for anything dripping, or for vibrations from the engine that will loosen the nuts on the old diesel. So I check if there are any leaks and just make sure all the fuel is secure. They've never failed me, I suppose because if you look after them well, if you maintain them properly and keep an eye on them, they won't fail you.

The main thing to do every day is to go check the engine, check the fuel dip, oil, temperature, pressure, and make sure it's all running and the electricity is not getting used up everywhere around the community, with lights left on that are not meant to be on when nobody's there. So I just switch them all off.

ADRIAN: When I rang you yesterday morning, you sounded pretty busy, what were you doing then?

KEVIN: [laughing] I was doing a tractor tyre, changing that horrible thing! And it's pretty hard with only one bloke doing it.

Yeah, I was getting the old tractor running and cleaning up around the clinic, there's a small clinic here for all the old people.

ADRIAN: To help maintain the water supply, Kevin has to complete a number of tasks to look after the bore and the water tank at Dodnun. From washing the solar panels, keeping the bore pumping water, maintaining the main water tank, checking the flow metres and even cutting the grass around the water tank. They may seem as minor tasks, but they're very important things to do to keep the water supply running from the water tank.

KEVIN: There's one big one [water tank], that's real good there are no problems with it. It has never failed me and the waters real good. They reckon it's the best water in this area. You'd think it came out of the fridge.

ADRIAN: What is required to maintain the water from the bore?

KEVIN: There are two big solar panels there — the little electric one and there's an ordinary little water pump that you hand crank. The little hand crank one is just for emergencies or for during the wet when it's overcast and the solar one doesn't run well. I wash the panels now and then because a lot of dust and grime builds up on it and then I check the water flow metre again on the big tank here for water and make sure the gates are locked. I also cut the grass around it because all the fires come from that direction and you got to keep cutting the grass because fire can get real close.

ADRIAN: As the Essential Services Officer at Dodnun, Kevin would also like to see young people in his community get a good education and training. He knows he can show them the hands on stuff of what to do around the community to keep essential services going, but he wants them to understand how important it is to have good literacy and numeracy skills.

KEVIN: I can tell the young people here a certain amount, I can show them hands on stuff, but give me something to train them with, you know, the literacy part of it. Because they need to be able to do addition and read and write as well. Young people are pretty good and they will work for you for a while and they are learning, but sometimes they seem to get bored and go away to Derby.

ADRIAN: One of the biggest problems they have in the Kimberly is black soil. Approximately six years ago we reported from the Kimberly how black soil has to be compacted and raised off the ground with gravel, to enable vehicles to go in and out of these remote communities. As Kevin explains, during the wet season vehicles get bogged and quite often it's difficult to get essential supplies into Dodnun.

KEVIN: There's big black soil flat when you come in on the road, it's about 30km and it gets really mushy, so you're sliding and get bogged. Nothing can come in, nothing essential anyway, like supplies and fuel if you really need it and even sometimes the plane won't land. Mt Elizabeth station isn't not too far from here you see.

ADRIAN: I did a story on black soil in the Kimberly some time ago and apparently you've got to compact that black soil to make it strong?

KEVIN: Yeah, but you got to make sure you rise it up off the ground with the gravel, so by the time the wet comes it drops down a couple of inches. Sometimes they pack the soil good but at times they don't and that's when it get difficult to get in and out of Dodnun. When it does rain really hard during the wet, you can't do much anyway.

ADRIAN: Some final words from Kevin about how he enjoys his job and why he thinks it's important that he is employed in his community as the Essential Services Officer.

KEVIN: If a white person was doing my job, you have got to find accommodation for them and then you have to make sure they have a vehicle. And they end up leaving because they get sick of the job and they only last about one year before they take off and look for a better job, or they are missing their family. But if you're here all the time and your family is here, you're not going to take off anywhere.

ADRIAN: So it's been a good decision to employ you as the Essential Services Officer for consistency in the job?

KEVIN: Yeah and everybody knows me and they've only got me to blame. [laughs] They can't go and growl at the white fella.

It's good here with my family, my friends. My people are good.

My job keeps me busy, because doing that work for the community keeps your brain going, dealing with numbers and with water flow and all. And as long as everything is running well then all the oldies are happy and they tell you they're happy. When everything runs smoothly everyone's happy. ■

Bushlight 100th Installation

Bushlight recently celebrated a significant achievement; the project has now worked with 100 small, remote communities providing them with access to reliable energy services, many for the first time. To mark this milestone, Bushlight organised three separate events that were hosted by outstation communities Bushlight has worked with in the past; one at Kapalga (in the Northern Territory's Kakadu region), one at Kulpa (near Coen on Cape York) and one at Chile Creek (on the Dampier Peninsula north of Broome).

In addition to the community residents and local traditional owners who attended each event, other guests included residents of nearby communities, staff from local service providers, representatives from a range of local, State and Australian Government Agencies, state utilities and a range of other interested individuals and organisations.

Community residents played a key role at each event, in one case welcoming the guests with a traditional dance. Guests were able to hear first hand from community residents about their experiences of life in their communities before the installation of the Bushlight system, and after. Each event also provided Bushlight with an opportunity to explain how the community planning process is facilitated, how community information is taken into account in the renewable energy system design process and the role of ongoing support provided to each community to ensure the reliability of the energy services.

Community residents at Kapalga welcome guests to Bushlight celebrations with a traditional dance.

Launch of the Desert Knowledge Australia Solar Centre

The Desert Knowledge Australia Solar Centre is a $3.1 million initiative of Desert Knowledge Australia, funded through the Australian Government's Renewable Remote Power Generation Program, designed to showcase and demonstrate a range of solar power technologies in commercial-scale installations.

The Desert Knowledge Australia Solar Centre is part of the Desert Knowledge Precinct, South Stuart Highway, Alice Springs.

The Hon Peter Garrett AM MP opens the DKA Solar Centre.

The Federal Minister for the Environment, The Hon Peter Garrett AM MP officially opened the Centre on October 1st 2008. Representatives of the Northern Territory Government and the board of Desert Knowledge Australia also played a role in the opening ceremony.

These installations will enable meaningful and accurate comparisons of technology performance in an arid environment.

A range of different manufacturers and suppliers are demonstrating their technologies at the site.

While some of the technologies have been widely used within Australia, many of the installations use technologies that are new to Australia. Different mounting technologies are also demonstrated.

The Desert Knowledge Australia Solar Centre will also play an important role in public education of the benefits and capabilities of solar electricity generation. The Centre will be open to the public, and a range of interpretive displays will allow school children, tourists and the local community to learn about and explore the differences between the technologies.

CAT fire guard

As part of CAT's on-going involvement in developing robust and appropriate technology products for Indigenous communities and organisations, a new range of products is emerging — outdoor fire protection devices.

The initiators of this development were the staff and residents of the Kaltukatjara Aged Care Facility at Docker River in response to a tragedy that occurred in July 2007, when a fragile elderly lady rolled into her outdoor camp fire and received fatal burns.

CAT's Projects and Regional Services Team was known to the CEO, staff and residents of the Kaltukatjara Aged Care Facility through a major up-grade of the facility that CAT project managed. The Project Brief given to CAT staff from the CEO was to explore ideas and produce a design for a device that would prevent or reduce the risk of such an accident occurring again.

More recently CAT staff were contacted by Frontier Services' Respite and Carelink Centre as they wished to provide a remote like environment for the provision of respite care in Alice Springs and wanted to provide a fire for cultural reasons which would be safe for clients to use.

Staff from CAT had completed some sketches of fire protection guards in anticipation of what may be required at Docker River, and these were shown to the staff of Frontier Services. A sketch was selected, which is now known as the 'Flying Saucer' Camp Fire Guard. Quotes were sought for the fabrication of a prototype, and Frontier Services funded the fabrication.

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Recently, the new MacDonnell Shire (Docker River), along with the Department of Health and Ageing contacted CAT again and in the interim have ordered two more 'Flying Saucer' Camp Fire Guards for the Docker River Kaltukatjara Aged Care Facility, which have been delivered.

Further to the 'Flying Saucer' Camp Fire Guards, the Docker River Kaltukatjara Aged Care Facility have given a revised Project Brief to CAT staff, for a cool-to-the-touch fire box with a flue for use under a verandah or shelter. They will fund the design and fabrication of a prototype fire box already dubbed 'the Pizza Oven'. CAT staff are currently working on this project and a prototype will be manufactured soon.

Recently the 'Flying Saucer' Camp Fire Guard attracted the attention of the ABC New Inventors show, and they filmed the device with Marc Seidel from CAT and two old men (actors) from Hermannsburg, who acted out the safety aspects of the camp fire guard. An information segment will be shown on the ABC New Inventors program early next year.

CAT students' Adelaide Field Trip

In September 2008, eight students from the Centre for Appropriate Technology's (CAT) Technical Studies Group Automotive and Atwork courses went on a field trip to Adelaide.

The students visited Birdwood Motor Museum, Mawson Lakes University, CMV trucks, Australian Technical College, Tauondie College and the South Australian Museum.

The students enjoyed seeing the Birdwood Motor Museum with vehicles ranging from the 19th to the 21st century, and a wide range of automotive products from various national and international sources .

At CMV Trucks students gained insight in the automotive trade of truck servicing. CMV offers an apprenticeship program inhouse where apprentices finally progress to the adjacent workshop to put their training to the test.

The CAT students enjoyed talking with a CMV trainer and his students, discussing issues and barriers around training.

At Mawson Lakes University the students visited the Mechanical Engineering, Mathematical Science and Environmental Studies facilities and met the lecturers.

The students found Mechanical Engineering very interesting. They were informed that students at the school had built cars from scratch to the finished product, and participated in a simulated race. The winner of this 'race' gets a finished car that has the highest mark for the best mechanical engineering, fuel consumption, speed and aesthetics.

Students also enjoyed the Mathematical science faculty where they had lecturers discussing and demonstrating robotics, and were shown model helicopters and robotic arms. The visit gave the students real insight into University life. In the Environmental Studies section, some students were brave enough to hold the pet python!

In Port Adelaide the group visited the Indigenous college Tauondie.

Tauondie runs courses in Business, Community Services, Visual Art, Information Technology, Horticulture, Hospitality and Tourism.

The students felt a definite similarity between this college and CAT and thought a college like this would work well in Alice Springs.

The group also visited one of the Australian Technical Colleges in Adelaide (ATC).

The principal objective of the ATC is to address the current and future skills needs of the Australian economy through achievement in a number of key areas, such as: promoting pride and excellence in trade skills training for young people, providing skills and education in a flexible learning environment, industry-led governing body for each ATC to set out the strategic directions and performance objectives to provide trade training that is relevant to industry.

An ATC student picks a trade of his/her choice, does the apprenticeship and then leaves with a full qualification and a Year 12 Certificate.

The group was keen to see the workshops and hear about further opportunities after graduation. Students also commented that the workshop facilities were like a 'hotel room in the Bahamas'.

Visiting the South Australian museum was a highlight for the group. They enjoyed seeing the Indigenous section and learning about stories from the past. The African animals section was popular as some of the members of the group had never seen anything like this before.

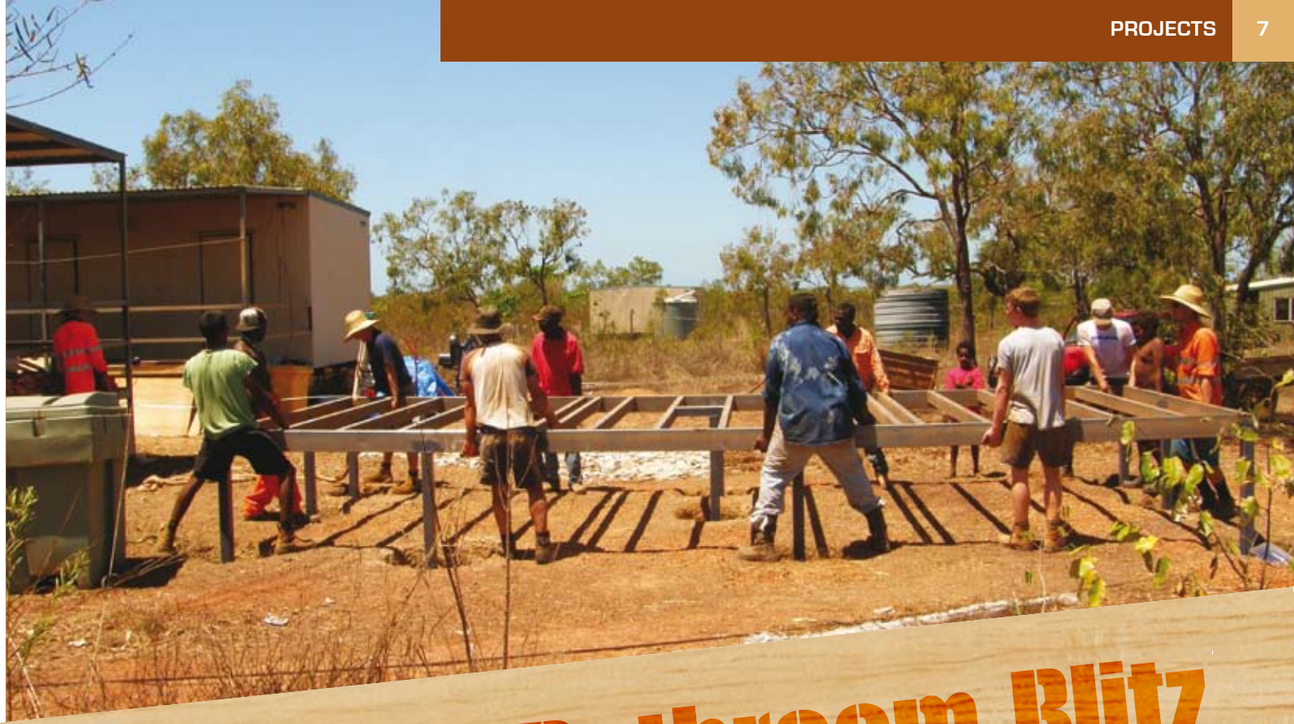
A couple of hours was spent looking at Indigenous technology from the South Australia region and across Australia.

The group was impressed with the museum's large variety of exhibits and especially the auto museum, which created a lot of discussion because of its connection with Indigenous people.

The group gained great insight from this trip into what trades are available to students. Previously students have not had the benefit of exposure to the variety of workshops that are actually available. These field trips give them the opportunity to see what options are available interstate, as options tend to be limited in Alice Springs.

The CMV trucks, Mawson Lakes, Tauondie College, and Australian Technical College's expressed enjoyment at the visit from the CAT students, and stated that they would welcome visits by CAT students on an annual basis.

CAT students and staff with faculty members at Mawson Lakes University's Indigenous Students Services office.



Bentinck Bathroom Blitz

CAT and Engineers Without Borders work with the Kaiadilt mob from Bentinck island to build an amenities block from recycled building material.

Bentinck Island is quite a large island (14,000 ha) in the Gulf of Carpentaria QLD. The island (part of the Wellesley group) sits about 50 nautical miles south of the larger Mornington Island and is the homelands of the Kaiadilt People who maintain a small community on the eastern tip.

Some elderly ladies live permanently on Bentinck, and are visited regularly by extended family. The ladies run a successful art enterprise. However most Bentinck people live on Mornington.

Through a larger project supporting the homelands on Bentinck Island the Centre for Appropriate Technology (CAT) has been working closely with the Kaiadilt to improve infrastructure management and maintenance.

During a visit to Bentinck the ladies pointed out that they needed an amenities block for a couple of dongers on the island and that way young men and families could come as stay and have their own space. While exploring the island CAT staff noted the abundance of disused building material — everything from roofing iron to composting toilet units! Everything you needed to build an amenities block — even the kitchen sink. All we needed was some knowhow to design the building from material that was around, and some expertise to help the Kaiadilt to build it.

CAT Cairns staff put the challenge to Engineers Without Borders (EWB), a non-profit group starting to work more with Indigenous communities in Australia. EWB jumped at the opportunity and within no time had a team of eager engineering, architecture and construction students lined up to run the project. The enthusiasm was

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infectious. After talks with all the Bentinck mob on Mornington a team of Kaiadilt fellas was put together to help out while the EWB team got to work raising money and support.

The project began to take shape — EWB and CAT managed to get funding from ANZ, while the students themselves raised money from ARUP and a couple of construction companies in Brisbane. Professional engineers and construction supervisors were also recruited to help from the Queensland University of Technology (QUT), ARUP and Baulderstone.

In June three EWB people came to Bentinck for a quick scoping trip. We had a great time measuring materials, preparing drawings and hanging out with the all the ladies. Drawings were made, plans developed and equipment (donated from various large construction sites in Brisbane) freighted up on the barge. The construction trip was taking shape.

Finally on the 27th September (with a small sponsorship from MacAir) the EWB team arrived on Mornington Island with CAT ready to head over to Bentinck on the Volunteer Marine Rescue boat the next day. After a busy day organising all the workers from Mornington, six volunteers on the rescue boat and ten Kaiadilt fellas in two tinnies began the three hours crossing to Bentinck with Goofy (Gerald Loogatha) and Vanlee at the helms choosing to navigate by the stars and crossing in the pitch black of a moonless night.

The next day is was straight into work — digging holes for footings, gathering steel for frames, welding, cutting and manufacturing the building from scratch. The next two weeks involved many late nights digging, concreting, roofing, welding, grinding and midnight fishing. Everyone mucked in young and old — even Chookie (the chairman of the Kaiadilt Aboriginal Corporation) was getting dirty digging holes. Tony Escott and Vanlee proved to be indispensable in manufacturing and welding together the steel structures of the buildings. The team even managed to fix the broken down backhoe with a new radiator from Cairns and a cannibalised water pump.

All went so well that half way through, when the team of volunteers swapped over with a new team, Gerald decided to head back over to Mornington to pick up some more fellas to help out. The smooth ride was over — the next day an air and sea search was on as seven fellas drifted across the gulf with a blown outboard piston — but luckily there were eventually found sailing towards Little Allen Island under the propulsion of the flooring pulled up for a sail. Not to be dissuaded, the fellas were straight into work the next day with a determination to finish the project.

Despite all the drama a couple of days later there was a short pause to celebrate the news; received in a phone call on the roof at night (one of the few places we could get a signal), that Tony became the proud father to a new young fella — Maclean.

Finally, after 2 weeks of sweat and hard work, laughs and late night fishing trips, the building was finished with a last final push late into the last night. It was a magical moment when at 10:30pm the last of the steps up to the toilet block were cemented in. Everyone signed their name or tagged the cement. With a few final touches the next morning there was little time for celebration as the rescue boat arrived to whisk the entire weary team back to Mornington.

CAT and EWB would like to thank the Kaiadilt people for doing so much to help make the project work especially with the challenges of transport, fuel and food — in particular thanks to Tony Escott and Vanlee for spending so much time as our expert welders, and thanks to Gerald for bringing so many fellas over while risking life and tinnie. Thanks also to Neville for his energy getting everyone motivated, Chookie for organising his mob, Carla for the awesome food, David for pushing through with some truly hard digging, Pigman for his delicate and expert backhoe mastery, Percy, Herbert, BJ, Watson and Anthony for their muscle and fishing skills and all the kids for their enthusiasm and entertainment. Finally Eunice for the damper and opening the shop on demand, and Carl and for his patience with us breaking and fixing the islands machinery!

Thanks also go out to Mornington Shire for supporting us and doing with out some of their key workers for the period of the project and the Volunteer Marine Rescue crew for giving up your time to bring us over and back — and for the occasional live marine rescue.

While this project achieved many things in terms of creating the building from limited resources it also achieve a range of other important outcomes for all involved. CAT and EWB, demonstrated a partnership for development in situations where access to the necessary skills and expertise required would not have been available through conventional avenues.

The dynamics and roles of each party from the Kaiadilt Corporation to EWB, commercial engineering and construction firms, the two Brisbane universities and CAT are particularly important. Each played its part according to its expertise but also in supporting each other in a successful partnership model. From an educational point of view, it demonstrated that a University partnership can bring powerful real world, transformative learning experiences for students that are a highly valuable commodity for universities.

And finally it demonstrated that with the right approach, intentions and good will there are many things the community can achieve with the appropriate support from external organisations. We look forward to the next project! ■

ANDRE GRANT
The Centre for Appropriate Technology
Cairns

Murray Muirhead, Christine de Rose (supervisor of the Indulkana PY Ku), and Deirdre Tedmanson and outside the Indulkana PY Ku.

PY Ku Network

The PY Ku Network is an exciting initiative to bring together a range of resources, services and funding from government and non-government organisations to deliver improved and increased services to the APY Lands and link service delivery with training and employment opportunities for Anangu.

PY Ku's are a network of Rural Transaction Centres which provide IT facilities focused on the provision of government or other services.

The Network of purpose built 'one stop shop' new buildings will also provide office and administrative support facilities for visitors to APY communities. In the long-term the centres could manage new and/or existing overnight visitor's accommodation in some locations and offer video conferencing facilities and online banking.

The PY Ku Network was endorsed by COAG, the Council of Australian Governments, as an Indigenous Trial Initiative in September 2003, to deliver a range of essential government and commercial services in one of Australia's most remote regions via on-the-job training and employment of local Aboriginal people (Anangu). The Network has been in the planning for over six years and has recently started operations currently employing around twelve part-time Anangu staff.

The length of time required to roll out this initiative underlines the importance of effective community engagement processes and co-ordination between government departments.

The 'roll out' across the Lands of the PY Ku Network is being managed by PY Media (Pitjantjatjara Yankunytjatjara Media Corporation), an Anangu owned and managed media organisation, which is recognised nationally as a leader in the delivery and management of remote communications and associated service delivery and training to Aboriginal peoples. PY Media has developed innovative technological solutions for Anangu communities in a way that aims to provide maximum social, cultural, employment and economic benefits to Anangu and to be embraced as part of the Anangu way of life.

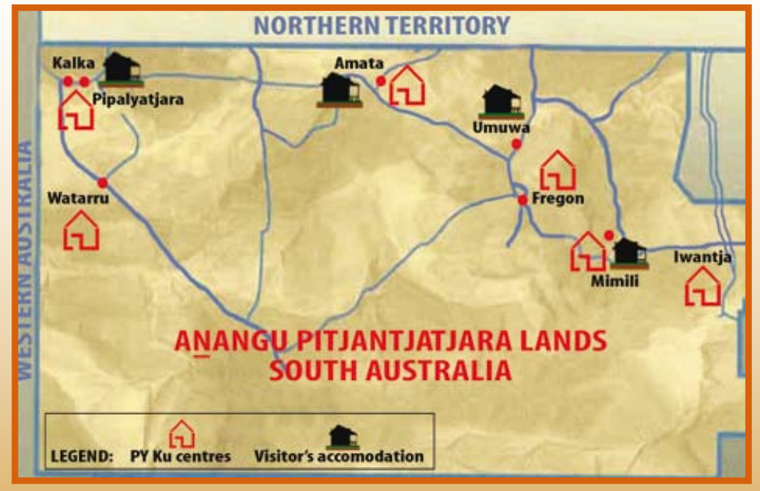
To date six purpose built PY Ku Centres have been located across the APY Lands in the communities of Iwantja (Indulkana), Mimili, Kaltjiti (Fregon), Amata, Pipalyatjara/ Kalka and Watarru. Centrelink services are operating through the PY Ku Network and a range of new SA Government services including motor vehicle and firearms registration and licensing, fines payments, births, deaths and marriage certificates and general information is planned. The PY Ku Network initiative has undergone extensive community consultation and planning, has Anangu endorsement and universal community support and requires the active cooperation and involvement of all levels of government.

'The PY Ku Network initiative has undergone extensive community consultation and planning, has Anangu endorsement and universal community support and requires the active cooperation and involvement of all levels of government.'

'Anangu see the PY Ku Network as a means to improving self-governance as well as getting better services for desert people,' according to Mr Ronnie Brumby, the Chair of PY Media. 'Based on our successful experiences to date we are looking forward to seeing more essential services being introduced.' PY Ku centres are doing more than just providing services — they also aim to be providing skills, training and real jobs in remote areas. 'PY Media is strongly committed to the development of an Aboriginal (Anangu) workforce throughout the PY Ku Network' according to the General Manager of PY Media, Peg Nicholls.

As part of the work of the Desert Knowledge Co-operative Research Centre's Core Project 5: *Desert Services that Work — Demand Responsive Services to Desert Settlements*, University of South Australia academic Deirdre Tedmanson, with the support of specialist researcher Murray Muirhead, are undertaking a participatory action research based evaluation of the introduction of the PY Ku Network across the APY Lands in South Australia, in partnership with PY Media and key PY Ku stakeholders. This research forms part of the overall DKCRC Core Project 5 which is working in four regions across four different jurisdictions: Western Australia, Queensland, South Australia and Northern Territory — to analyse the service delivery system, identify critical issues and strategies that provide leverage for change, design technology-based models and service delivery models with the potential to improve the system, and then trialling, monitoring and evaluating their success to gain information about what works and why.

By tackling problems at the interface between demand and supply of services to desert settlements, this DKCRC research is seeking to identify ways to improve consumer access to services in desert communities and to achieve better outcomes for service providers. CP5 is working across the many levels of the service system from heads of governments to end consumers, including people working in state government departments, regional offices, private sectors providers, and Aboriginal organisations. In the APY Lands, Deirdre and Murray are working closely with community partners PY Media and other key stakeholders as well as visiting communities and interviewing Anangu leaders, workers and consumers to capture the 'PY Ku story' as it unfolds. They are also working closely with Anangu staff and co-researchers to video the introduction of the PY Ku centres and aim to record the aspirations of Anangu for their new PY KU network, identifying what it provides by way of better service access and what Anangu consumers would like to see these new Centres provide into the future.




Customer utilising the Centrelink Hotline


Staff at work in the Kaltjiti (Fregon) PY Ku staff area


Customers receiving over-the-counter services at Kaltjiti


Filing in the staff area

Steve Fisher, DK CRC's team leader for Desert Services that Work project says that: 'One of the most exciting things is the way the transaction centres will also be used to link up with relatives and business partners. For example we're exploring how video-links at the PY Ku Centres can enable people to keep in touch with kids who are away at school and enable "virtual" meetings.' ■

DEIRDRE TEDMANSON
University of South Australia
and Desert Knowledge CRC

Recycling at Lajamanu

James Newman reports on the Lajamanu Container Deposit Scheme and how it is reducing litter on the streets and making the community cleaner and healthier.

Metal is 100% recyclable including old washing machines and fridges. Photo: James Newman

Gurindji TO Robert George is working hard to make Lajamanu community clean and healthy for everyone.
Photo: Alyson Wright

Robert George is passionate about improving the look of Lajamanu community. RG, as he prefers to be known, is responsible for managing the waste recycling facility at Lajamanu. Community members collect aluminium cans and plastic drink bottles then take them to RG who crushes the containers to be taken to either Darwin or Katherine for recycling.

When you consider that humans generate approximately 1.62 tonne (1,620kg) of waste per person per year[1], it is easy to imagine how big a concern waste management is for many remote Aboriginal communities throughout the Northern Territory. As landfill sites fill, more and more land is required for waste management. The Lajamanu Container Deposit Scheme has helped to reduce the amount of litter on the community streets, and the total amount being placed into the landfill site.

It is good to see recycling strategies being implemented in Northern Territory communities. Methods to reduce the impact on community landfill sites include reducing the amount of waste products entering the community and reusing products and containers for other purposes. For example, car tyres could be used to enhance the look of garden beds, or reusing different materials for arts and crafts projects. The third strategy is recycling products such as aluminium cans and plastic containers.

This is exactly what Lajamanu community in the Tanami Desert have been doing for the past 12 months. Recycling is a great way to reduce the amount of waste going into the community landfill site. The Lajamanu community also benefits from the project financially due to the small reward being offered by the Lajamanu Progress Association/Store (PA/S). The PA/S placed an additional 10c fee on top of the cost for cans and bottles of soft drink.

A pallet of aluminium cans ready to be transported to Katherine for recycling.
Photo: James Newman

The new baling machine being used at Lajamanu for recycling aluminium cans and plastic bottles.

This fee has since been reduced to 5c as a result of price rises. When residents return empty aluminium cans and plastic bottles, they receive the small refund.

Funding for the Container Deposit Scheme was provided by the NT Department of Natural Resources, Environment, the Arts and Sport (NREtAS). These funds helped to purchase capital equipment and support from the Centre for Appropriate Technology (CAT). As well as monitoring the project, CAT also organised or provided training to RG and other community members who were directly involved with the recycling.

The Container Deposit Scheme is operated from a shed that houses a new baling machine provided by NREtAS, and purchased from Adelaide. Since it was delivered, there have been over 96,000 aluminium cans and plastic bottles returned to the recycling shed. RG and his colleague Ralph Dixon then crush the items and place them on pallets to be removed from the community.

The aluminium cans are taken to Katherine for recycling, and the plastic is transported to Darwin. From Darwin the plastic containers are sent overseas where they are cut into small chips. Recycled plastic is used to make a huge range of items such as the polyester shirts and other clothes most people wear.

The recycling process includes sorting the plastic containers according to their resin identification code. This code can be found on the bottom of the container and includes a recycling symbol consisting of three arrows in a triangular shape with a number inside (Fig. 4).

Some items that can be recycled with their code number and recycling symbol[2]

RG said, 'the whole community is happy with the project and how it makes the community clean'. Jim Butler, Progress Association and Store Manager, added that 'visitors to Lajamanu have noticed a gradual change over the past year' and he often hears comments on the cleanliness of the community.

The new Central Desert Shire and the Lajamanu Local Advisory Board are also keen to work together and develop other waste management strategies. There are plans to cordon off sections of the waste landfill for other items that can be recycled such as batteries, rubber tyres and old washing machines. There are many items that can be recycled or reused rather than being thrown into the landfill site.

The Container Deposit Scheme has been hailed a success by all those who have participated. The benefits include extra pocket money for community members, particularly school children who have been the main recyclers. Lajamanu is a much tidier community and has been rewarded by winning the Chairman's Prize at the NT Melaleuca Awards in April 2008. RG also attended the NT Tidy Towns ceremony in November where he presented a short video, which CAT helped to organise, of the Lajamanu recycling project. Lajamanu was awarded a prize for the Best Community Store because of their assistance with the recycling project. These awards are encouraging for the Lajamanu community to continue with recycling and other waste management ventures that will benefit the community well into the future. ■

figure 4 TYPES OF PLASTIC

JAMES NEWMAN
Centre for Appropriate Technology

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Wunan Construction & Maintenance

Wunan Construction and Maintenance (WCM) is a small building business operating in Kununurra, on the edge of the East Kimberley.

Wunan Foundation Inc was originally established as a community driven initiative by the elected representative body for Indigenous people in the East Kimberley, ATSIC Wunan Regional Council.

The purpose of the Foundation is to build up capacity to sustain innovative and progressive programs for improving socio-economic outcomes for Indigenous people in the East Kimberley.

WCM

is an initiative of Wunan Foundation, an independent, not-for-profit organisation supporting the East Kimberley's Aboriginal people to become independent and self-sufficient.

The development was not only aimed at breaking the welfare cycle but also to build on Wunan's existing employment and education programs, while simultaneously addressing the critical shortage of accommodation in the area. And in 2006, 11 young Indigenous men were employed, working under the guidance of three qualified builders and an Aboriginal mentor.

Through various projects, WCM aims to create a sustainable commercial housing business to address the housing shortage in the East Kimberley and has built four houses in 11 months, three of which are used as 'Stepping Stone' accommodation, called Pindan Place.

Pindan Place is used as part of Wunan's 'stepping stone' accommodation strategy. The 'stepping stone' accommodation concept sees a good home as a key for young people to establish a successful future. A good home is used to both support and reward people who take responsibility for themselves and their family through work and education.

Wunan Construction and Maintenance's primary commercial services include:

- New housing construction;
- Housing renovations and upgrades;
- Routine repairs & maintenance; and
- Non-routine repairs & maintenance.

WCM provides a structured model for young Aboriginal people to gain skills for life, work and the building sector and as a result build a pool of competent local people working in the housing sector, upgrades and repairs and maintenance, and provide an alternative local capacity to contribute to better value in building services for Aboriginal housing, including new housing,.

Wunan Foundation CEO, Mr Ralph Addis, explains that before their involvement with the business many of the participants were either unemployed or on CDEP, a kind of Aboriginal work-for-the-dole program that has become a dead-end destination for too many young people in the region, despite huge demand from employers.

And for most Aboriginal people in Kununurra, public housing is the only long-term accommodation option. Many households experience significant overcrowding that can lead to social problems. These present a debilitating barrier to those young people trying to break the cycle of welfare dependency.

He explains that the building business is about much more than just getting a job. It is about learning the life skills and work skills so the guys can make better choices about the life they want, for themselves and their families.

'Whilst the program aims to provide opportunity and help build capacity, at the end of the day, the success of the business is about giving these young blokes a fighting chance of breaking the cycle of dependency and taking control of their own futures.' Addis says.

Importantly the development has provided real employment opportunities for 11 young Aboriginal men.

Manager of Wunan Construction and Maintenance, Jim Penrose has been with the team for 15 months where he started on the ground with the young men, as one of the qualified builders, providing mentoring and support to them throughout their traineeships and apprenticeships.

'I am very proud of the boys and it's good to see how conscientious they are', said Mr Penrose.

Critical success factors have been the consistency and nature of work, quality of building supervisors and Aboriginal mentoring, development and maintenance of a 'working' team culture, establishment of clear expectations and incentives around desired work behaviours, and access to Wunan Accommodation.

Aaron Griffiths, a young Aboriginal man from Halls Creek who moved to Kununurra with his partner and young daughter is now a second year apprentice with WCM and has been employed with WCM since its establishment.

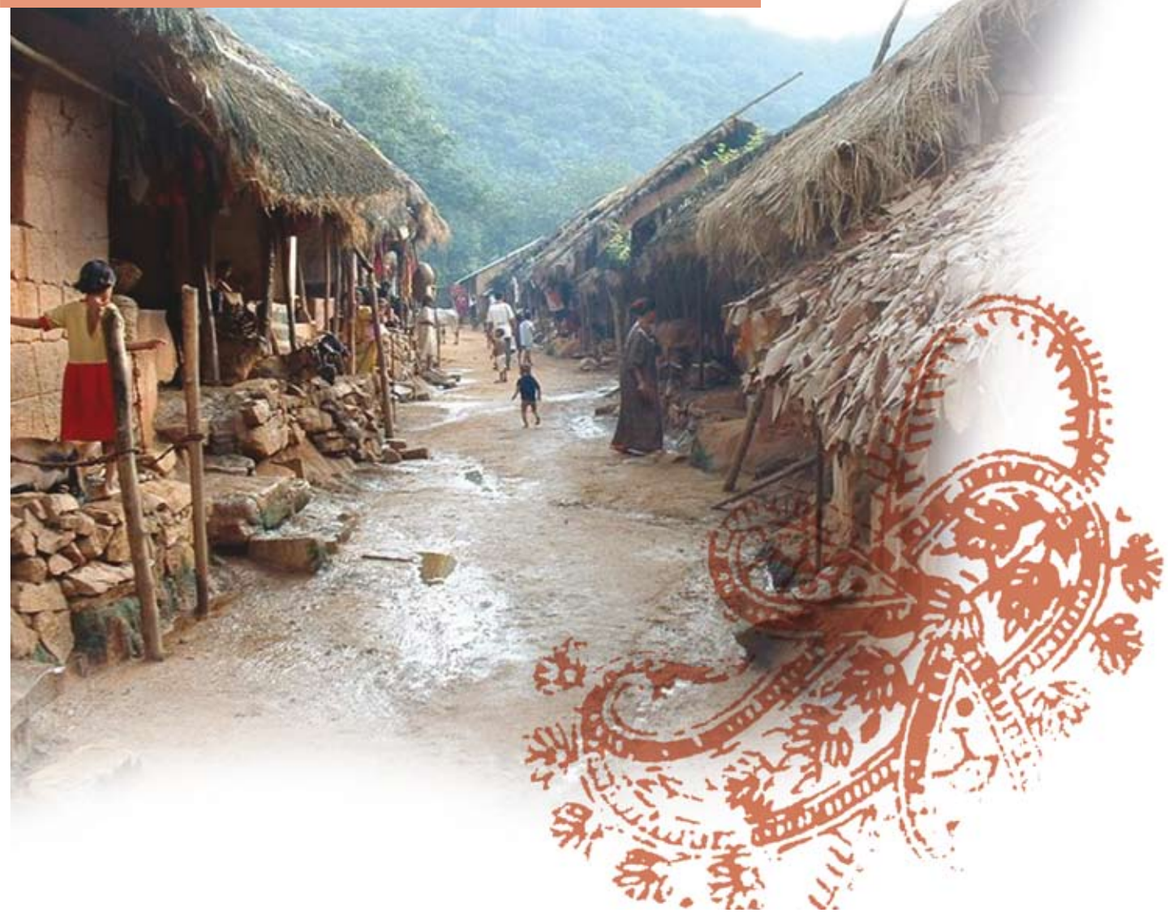
'My main goal is to finish my trade and start my own business', said Mr Griffiths.

Looking forward Wunan Construction and Maintenance is focused on supporting our Trainees and Apprentices to move through their studies and obtain formal building qualifications; and pursuing business opportunities across the East Kimberley, including Halls Creek and other remote communities.

'And that won't happen unless these young people understand that their life is their responsibility, no-one else's,' Addis adds.

Over the past year WCM has built a credible reputation in the building industry in the East Kimberley and has since formed a second team to assist in carrying out building, construction and maintenance projects in Halls Creek and surrounding communities while continuing to recruit more young Aboriginal trainees from the East Kimberley. ■

MICHELLE MARTIN
Wunan Foundation
Kununurra



RURAL ELECTRIFICATION IN India

In India today, a significant number of villages in remote rural areas continue to suffer from a limited or complete lack of access to reliable, affordable and safe energy services.

People in rural Indian villages rely on traditional biomass fuels (energy derived from plants and animals) and human effort for the bulk of their basic energy needs. These include cooking, drawing water and the processing of grains (hulling and grinding). The use of kerosene and candles for lighting is also very common and accrues significant expenditure (upwards of 1–3 days of individual income per month per household). With regards to electricity supply, it is estimated that somewhere between 115,000 to 150,000 villages are currently unconnected to a main electricity grid, with only a very small number of villages (3368 villages, 830 hamlets) with access to electricity through decentralised village energy systems. There are an estimated 586,000 villages in total in India.

Since independence, India has struggled to establish energy security in many of its rural areas. In its efforts to do so, however, it has explored the whole gamut of options available and through this has managed to establish local industries in both centralised and decentralised power production and distribution technologies. Renewable energy (RE) in all its forms has been one of the great beneficiaries of this inclusive approach and a long history of research, development and dissemination of RE technologies now exists in the country.

Interestingly, while environmental concerns do play a role in the thinking behind the support given to RE technologies (more and more so in today's climate) the RE sector in India is driven largely by energy security and diversity concerns rather than environmental concerns. India currently imports approximately 70% of its oil and has a real interest in diversifying its available fuel base. As such RE is able to maintain and even expand its role in national energy policy. The status of RE technologies is widely appreciated and accepted as a viable and necessary component of the overall national strategy for developing energy security.

The lack of access to electricity services limits people's opportunities to develop new and existing livelihoods and income generation activities, and so by extension, the development of local markets and economies. Poor to begin with, these villages remain in a precarious position, highly vulnerable to natural and economic disasters and lacking the capacities to improve their lot. The use of inefficient and polluting technologies such as traditional chulha (cookstoves) and kerosene (for lighting), also have grave impacts on peoples health and their ability to partake in productive activities, particularly women and girl-children.

While the lack of access to modern energy services continues to be a critical dimension of rural poverty, a number of other significant factors also continue to be of great import, including: lack of access to clean drinking water (with the resultant morbidity this brings); lack of education; lack of access to sufficient health services and awareness of health related issues. The underdevelopment of local rural markets and economies and low levels of cash in these are a prime effect of these conditions. These issues are also interrelated. For example, the time spent having to collect wood and other biomass and cart water result in a reduction in the abilities of rural people, especially women and children, to

'The lack of access to modern energy services limits people's opportunities to develop new and existing livelihoods and income generation activities, and so by extension, the development of local markets and economies.'

Continues page 18 >

'Ultimately, a coordinated and holistic approach that frames energy access as a core component for improving rural livelihoods rather than merely supplying rural lighting will be critical.'

attend school or participate in education programs. Consequently, reducing the time spent on the drudgery of such tasks (through piped water supply to houses and more efficient stoves) can lead to improvements in the capacity of women to undertake other activities, both social and directly productive.

Women's existing productive activities can also be made more effective. Time spent manually milling grains or travelling to local milling stations can be re-directed to other purposes.

There is at present a large gap in the economic growth rates between urban and rural areas (respectively around 15% to 2–4% p.a). Currently, annual economic growth in the country sits at approximately 9%. The boom the Indian economy is currently experiencing (and has for the past 5 years or more) has, however, only been able to reduce the rate of poverty at less than 1% per annum.

The issue of rural energy insecurity is not new and has been subject to a massive amount of work over the past four decades by scientists, technology R&D institutions, NGO's and community organisations and state and national government, with support from international funding and development agencies. These efforts have focussed on specific problems, ie development of biogas units and dissemination under a biogas programme. Many such programmes exist, one for each technology/problem, with little or no integration between them and at times conflicting or at least contending interests. Some of these programmes have proven successful, though none have been consistently successful across all the states. The success factor seems to depend (among other things) on strong individual leadership by local organisations or state departments. The scattered and questionably sustainable success experienced reflects a number of critical failures at both the policy and implementation level. Arguably, one of the biggest of these was the focus on technical solutions as opposed to a wider effort to build the economic capacities of target communities. Insufficient ongoing support also affected the long-term sustainability of many of these programmes.

The rural energy scenario in India today is characterised by extensive, unmet demand for improved energy services, a lack of clear and consistent long-term rural energy policy, a history of innovation in renewable energy solutions but a failure to bring many of these to commercialisation, and highly centralised 'electrification' programmes, administered by either the Ministry of Power (MoP), or the Ministry for New and Renewable Energy (MNRE). Remote village electrification takes place today either under the auspices of the MoP administered Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme, or through one of MNRE's various programmes (the Village Energy Security Programme (VESP) and Remote Village Electrification programme (RVE) being two). Other such work is also undertaken by individual organisations using funds sourced from elsewhere. There are islands of success but as yet no clearly replicable, widely applicable model for the successful delivery of sustainable renewable energy services in remote communities.

Of those villages without access to electricity, many thousands are too remote for grid electricity to ever be a technically or economically feasible option. For these communities, access to reliable energy services is hampered by their remoteness from established electricity grids, high in-situ costs of conventional fuels, low levels of education, poor socio-economic status, and limited, often non-existent access to service networks. For these villages to be electrified, the only solution is a standalone (distributed generation) power system. In this context, RE technologies offer remote communities the opportunity to generate their own energy without the prohibitive ongoing costs and access difficulties associated with fossil fuels. To date, however, a widely replicable model for the delivery of appropriate capacity renewable energy services has not been established and RE in general has not been sufficiently demonstrated as a reliable and cost effective solution for meeting a community's energy needs.

A further aspect of the problem is that most Government sponsored remote village electrification models now in place in India are 'supply driven' and seek to meet only one aspect of people's needs (usually domestic) and fail to account for the full range of livelihoods related energy needs. The largest of these, the MoP administered RGGVY for instance, commits only to the provision of household lighting.

In India a variety of RE technologies and implementation models have been developed and deployed by various organisations, businesses and government, catering to the wide range of social and geographic environments present in the un-electrified regions of the country. A significant body of experience has been built up from this work. However, no one model has yet been widely replicated, and a number of key challenges continue to face the RE Industry in India. They include the sheer scale of rural energy poverty and the associated electrification program, energy system component and system reliability, the complexity of community energy needs (a mix of domestic and local economic development) and the development and application of appropriate technical and training standards.

Many challenges remain, however, work continues apace to find the necessary solutions and this may be facilitated by the new National Action Plan on Climate Change and an increased focus on citizen rights to access energy as enshrined in the Electricity Act of 2003. Ultimately, a coordinated and holistic approach that frames energy access as a core component for improving rural livelihoods rather than merely supplying rural lighting will be critical. ■

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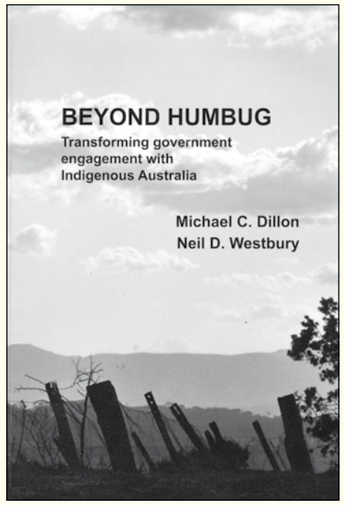
Photography by Michael Tuckwell.

BEYOND HUMBUG: Transforming government engagement with Indigenous Australia

Review by Ruth Elvin



Beyond Humbug has received considerable attention since it was published early in 2008, due largely to the authors' assertion that remote Australia is a 'failed state'. It is written by two highly experienced policymakers in Indigenous Affairs; Michael Dillon and Neil Westbury, who have worked with NT Governments and the current Australian Government. Despite the complexity of many of the book's ideas, it has a relatively straightforward, non-academic style that clearly describes many of the issues facing remote Indigenous Australia.

The 'failed state' thesis, namely that 'Lack of government engagement in remote Australia might legitimately be conceptualised as akin to a "failed state"' (p47), is based on work by the US Brookings Institution. It suggests that particular levels of low income, low security/high violence rates, low development in literacy and life expectancy, and weak governance are all indicators of a 'failed state'. The authors point out that Australia is willing to help with such states overseas, but needs to recognise the state of its own remote backyard. The 'failed state' is analysed particularly in relation to its impact on national security, which is threatened by the lack of attention to the needs of citizens living in remote areas.

More broadly, Dillon and Westbury also assess the policy implications of the increasing populations and movement people in remote Indigenous Australia; the factors constraining effective implementation of government policies, such as short timelines, limited cross-cultural experience and institutional paralysis; the success of the NT Parks settlement in relation to native title claims; town tenure reforms; and developing an effective public housing framework. They provide some large scale suggestions for fundamental reform including carving out a 'remote Australia' jurisdiction to overcome current federal-state issues; sustained engagement and investment to replace intervention; the development of an Indigenous Reform Commission to overcome the impact of electoral cycles: and more involvement from the private sector.

In short, *Beyond Humbug* is a provocative book that challenges the status quo from a position of considerable experience and passion for sustained change in remote Indigenous Australia.

By Michael Dillon and Neil Westbury Seaview Press 2007 243 pages

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