

# Resource Management

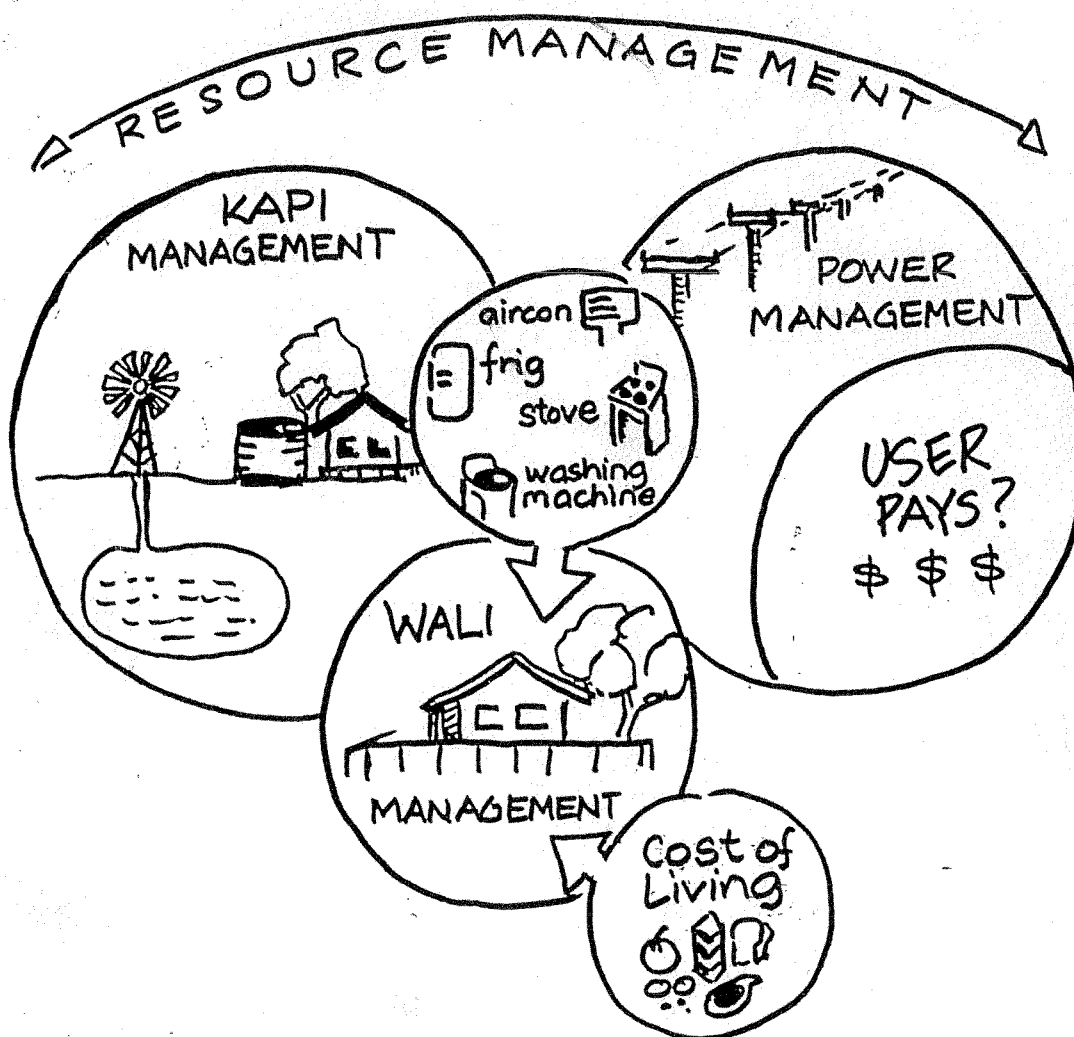
## Anangu Pitjantjatjara Services Resource Management Project 1998

including

Use and care of household appliances

Budgeting household resources

These visuals by Kutjara Consultants, Alice Springs.



### UPK HEALTHY LIVING PRACTICES

Ability to:

1. Be safe
2. Wash people
3. Wash clothes and bedding
4. Remove waste including septic and clean house
5. Buy, store, prepare healthy meals
6. Reduce crowding
7. Separate dogs and children
8. Dust control
9. Control temperature - keep cool or warm

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## Acknowledgements

The work described in the following report was made possible by funding from Nulla Wimaluk Kutju ATSIC Regional Council in Port Augusta, and SA State Office Adelaide.

There are many people to thank for their contribution to this short project. Leonard Burton, Director of AP Services and Bill Mansell, AP Services Housing R&M Coordinator were active in its conceptualisation and progress.

Anangu community members, too many to name, provided the real directions for the project, from the first round of meetings onwards. Anangu have shown a vital interest in this project.

There were two major rounds of meetings in every community and most homelands on AP Lands, and these were facilitated by the Chairpersons and the Municipal Service Officers of communities. Anangu Health Mayatjas and staff of Nganampa Health Service organised meetings with health staff in most communities. There was a price survey of every store on AP Lands, and without exception every store manager was helpful and prepared to give time to the project. Pitcas bookkeepers and accountants, with authorisation of community Chairpersons, were helpful in providing the raw data to carry out the CDEP income survey.

Stephan Rainow and Paul Pholeros representing UPK gave their own time to lend their expertise on issues that are critical to the future of people living on AP Lands, as did Kirk Nelson (UPK Environmental Health Officer), Eric Sultan, Roy Price (nutritionist and dietician, Alice Springs). Other contributors were staff at PAWA in Alice Springs, Lisa Balmer (Nutrition Awareness Project Officer for NPY Women's Council), Geoff Zerna (Parafield Airconditioning), and Dieter Henschel (Electronic Control Systems).

Luke Wigley of Medialight in Melbourne, and Paul Cockram (Artplan, Tennant Creek) made innovative submissions for the pilot cd rom. In the end we put together a very talented group: the Dunnart team from Alice Springs, Sam Bondareff and Charlie Lawrence and AVI Productions David Nixon did production and design, Alison Alder did the illustration for the home page, Paul Pholeros contributed his drawings. We hope that the cd rom is a successful way of providing information to anangu, as we think it will be.

## **Executive summary**

AP Services contracted Kutjara consultants to inform anangu about resource management issues, including budgeting household resources and the use and care of appliances. This work, like other AP services work, is closely related to the work of UPK, the public health arm of Nganampa Health Service, because anangu health starts with a healthy living environment.

Kutjara collated existing research by AP, UPK and the Centre for Appropriate Technology. We combined this with further research, and presented the information to anangu in community meetings and other smaller meetings in every community. Meetings were conducted by John Tregenza in Pitjantjatjara. Anangu said that they welcomed this information. Kutjara produced some large posters for these meetings (see A4 versions in this folder), and smaller booklets for community offices and clinics. We also produced 'how to use' signs for all washing machines and airconditioners. We see this work as part of an ongoing campaign to assist anangu develop resource management strategies.

### ***Kapi***

Kutjara presented current information on anangu house usage rates and water management, and developed a Water Story from aquifer to tap for anangu information.

### ***Power***

Kutjara collated and presented information on power, specifically on power use within the house. AP Services also directed us to inform anangu tjuta about the possible introduction of additional metered electricity charges under a 'User Pays' system, and to assess the impact of this system on anangu. Anangu already pay for power, and we found that they cannot afford to pay any more. 'User pays' might mean power cuts to anangu houses and this would create a health problem.

There are a whole range of questions that needs to be answered before DOSAA even talks about introducing 'User Pays'. There also needs to be more work done on research and development and retrofitting energy - efficient appliances.

### ***Use and care of household appliances***

We collected research by AP UPK and the Centre for Appropriate Technology, on water usage rates in anangu houses, power usage in anangu houses and use of washing machines and use of stoves. We also did further research on stoves and other appliances. John Tregenza presented the information at meetings in every community and discussed the use of stoves in particular, as directed by AP Services.

### **CD ROM**

Kutjara designed a pilot cd rom which has the capacity to contain all the above information about household resource management. Mediant in Alice Springs produced the cd rom. At the moment the cd rom contains the Water Story. The cd rom is ready for trialling as an information tool in communities.

### ***Incomes and cost of living on AP Lands***

Kutjara undertook this study as part of this project because the level of incomes and cost of living underpins all resource management on AP Lands. It is fundamental to budgeting household resources and affects the ability to buy, store and prepare healthy food and maintain a household.

**Incomes:** We used a hypothetical family consisting of two CDEP workers, a pensioner and three children to construct an optimum family income profile. 85% of anangu workers are on CDEP. We examined the CDEP and community wage records for every community. These showed a majority of anangu families receive less than an **optimum** income of \$600 per week achievable for the family.

**Stores box:** Then we put together a healthy living weekly stores box, consisting of food and other health items necessary to keep this family healthy for a week. The stores box was compiled from information supplied by Nganampa Health, UPK and a nutritionist/dietician in Alice Springs.

**Store survey:** Kutjara surveyed the prices of the items in this box at all community stores. The **average** price of the weekly stores box was \$500 per week per family.

**Analysis:** This shows that an anangu family would spend 85% of their income on health necessities only, and given this is an **optimum** income and **minimum** cost analysis, most anangu families are condemned to a

situation where they cannot buy enough food and personal health items to keep healthy.

This indicates the need for AP to develop a Regional Stores Policy, including fixing the prices on identified health items in stores.

We need to add, however, this block to anangu healthy living is **structural**, and it is of such a magnitude that the overall solution must include direct assistance from government agencies outside AP Lands.

### ***Future directions***

The household resource management project has started well. It needs further development, with more information being supplied to anangu tjuta on an ongoing basis. Recommendations for AP to consider follow the main body of the report (See *Recommendations* section).

## Recommendations

Following are the recommendations about future work in this project area, for consideration by AP and AP Services:

### 1. RESOURCE MANAGEMENT:WATER

**1.1 Water monitoring:**Water monitoring is a key management tool, ahead of and essential for any education about water wastage. This could be done by

- rainfall monitoring
- bore production monitoring
- quality monitoring
- building monitoring (school, clinic, football oval etc)
- house monitoring<sup>1</sup>

**1.2 Information:** It is recommended that ongoing information be distributed to communities about their water supplies, including

- yearly collation of data for community water story,<sup>2</sup>
- collation and broadcasting of information from the hydrological exploration (as is presently being carried out by AGSO, but also including other information.)

**1.2.1** The next stage of information delivery would also cover information about removal of waste water, including different methods of effluent disposal, and the effects of water contamination.

**1.2.3** The cd rom to be trialled and assessed.

### 2. RESOURCE MANAGEMENT:POWER

**2.1.Information:** Communities have asked for information to do with power on an ongoing basis, as this is a basic energy source for Anangu communities. Information would cover all aspects, from political developments to do with User Pays to alternative power sources to new appliances.

**2.2 Monitoring power:** This report supports the UPK recommendation that ATSIC and DOSAA be made aware of the need for:

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<sup>1</sup> Paul Pholeros communication: Comments on Resource Management Folder Information 21.8.98

1. All buildings to be retrofitted with energy efficient appliances/technologies.
  2. An ongoing commitment to fund research and development into energy issues
- Monitoring power usage is a key management tool essential for education and the development of any resource management strategies. This could be done by metering:

- fuel supplied
- generator output
- all buildings
- houses, and
- a wide variety of appliances for power use, as has been done for water use.

**2.2.2.** It is recommended that AP continue to request DOSAA to inform AP about current usage rates for water and power, as a prerequisite for any further discussion.

**2.2.3** It is recommended that AP Executive vigorously resist the implementation of User Pays on AP Lands - Anangu are paying for power already. Any increase in costs will have a direct and deleterious effect on state of health

### **3. INCOMES AND COST OF LIVING**

**3.1** It is recommended that AP along with Nganampa Health Service and all Community Councils adopt a **policy of implementing price controls on health items and healthy foods** across AP Lands to make them more affordable for anangu.

**3.3** AP and Nganampa Health Service, on adoption of the price fixing policy, begin **negotiations with government** health sectors to fund the shortfall in store operations that the policy implementation will produce.

**3.4** AP monitor the operation of **CDEP** in relation to tax savings being proposed, and the effect on income distribution of the administration of CDEP rules.

**3.5** AP Services support the installation of power meters for monitoring purposes

**3.6** AP Services support the installation of water meteres for monitoring puposes

**3.7** AP resist, and encourage community councils and members to **resist the implementation of further water and 'User Pays' electricity charges** on the Lands on the basis of anangu inability to pay due to the cost of healthy living statistics, and the adverse health effects caused by additional local community charges.

### **4. REGIONAL STORES POLICY**

**4.1** Given issues raised in stores survey and the fact that at every meeting AP was requested to pursue a pricing policy and development of a regional stores policy for AP

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<sup>2</sup> Pholeros: ibid



communities it is recommended that AP coordinate a Stores Policy meeting as a first step in developing a regional stores policy.

## **5. COMMUNITY MANAGEMENT**

### **5.1 Workshops** for community staff, other than anangu staff or Nganampa Health staff:

It is recommended that special intensive workshops are held for community staff, ideally gathered together in one or two locations. The information conveyed to anangu is critical for staff as well. While some community staff attended meetings, the meetings were conducted in Pitjantjatjara, so there would have been imperfect understanding by most staff. There is a need for coordinated support for the campaign from MSO's and others and some people need to be made aware of all the issues.

## **6. HOUSEHOLD APPLIANCES**

**6.1 Signs:** It is recommended that signs be put in place as quickly as possible to maintain the level of interest.

### **6.2 Stoves:**

1. **Trials:** It is recommended that AP trial two or three combinations of the options recommended in the CAT report in each community, as the need arises to replace stoves.
2. These trials to include metering the use of wall ovens and data logging.
3. The placement of wall ovens should be negotiated individually with householders with outside drum ovens as a preference in communities where wood is delivered.

### **6.3 Heating:**

1. **Regular supply:** CDEP programs should prioritise supplying firewood so that all households are supplied with wood according to their seasonal needs.
2. **Renewable supplies:** Communities need to recognise that wood is a primary source of fuel, and plan wood harvesting including planting wood supplies.
3. Further heating options need to be followed up, and further discussions entered into with anangu. The kinds of heaters installed in houses needs some examination. People are complaining that they cannot fit wood into these heaters, given that mulga is a very hard wood which is split by hand, not chopped.

## **7. DEVELOPING FURTHER ELEMENTS OF CAMPAIGN**

**7.1 Signs:** It is recommended that the signs be put in place as quickly as possible, to maintain the high level of interest about the signs.

Ideally Stage 2 of the project will include an evaluation of the signs and recommendations about signs for other areas if appropriate.

**7.2 Posters:** It is recommended that A2 versions of these posters be copied and laminated for use as posters in community offices and Women's Centres. Ideally colouring the posters and laminating them could be an activity for women's, art and craft and CDEP groups as appropriate and where the equipment is available. This would assist with reinforcement of the message to key people.

**7.3 Radio Spots:** It is recommended that the project develop and trial segments for radio to disseminate short grabs of material, update people with the news about resource management, and reinforce information already disseminated.

**7.4 A resource management (including healthy living) colouring book** is recommended as a reinforcing educational tool that will appeal to adults and children alike.

#### **7.5 cd rom:**

**7.5.1 Trialling cd rom:** The cd needs to be trialled to establish its effectiveness as an educational tool for anangu Pitjantjatjara, both adults and children, and to assess the appropriateness of the storyline and other components. (NOTE: Some elements of the storyboard have been trialled already in community meetings and discussions)

It is recommended that trials be conducted in every community in small group sessions during the next stage of the project.

**7.5.2 Performance indicators:** Assessment of the cd should be by

- the Director and Coordinator of AP Services
- a broad sample of anangu Pitjantjatjara
- the designers and producers themselves

It is recommended that the cd be assessed against individual questionnaires to be devised in the next stage of the project, and filled out by the consultants or anangu consultants during discussion after using the cd. The questionnaire should include criteria about:

- aesthetics
- content including storyboard
- construction and ease of use
- success or otherwise of interactive components

**7.5.3. Stage 2 of cd rom:** On approval of the pilot AP should seek funding to complete the other areas of resource management allowed for on the cd, including

- the remaining part of the water story: The **Water** story needs to be developed to include the waste water story including ways of disposing of grey water and black water from the house, and dangers of potential contamination of aquifers. An outline of this information should be made available on the cd rom as an extension of the Water story on the pilot version.
- the **Power** story including alternative sources of power
- **Safety** material
- other material allowed for according to priorities

### **7.6 Computer program re weekly stores for healthy living**

**7.6.1.** During the second stage of the project the computer program should be trialled with regard to its accessibility and usefulness, in consultation with anangu clients, AP Services, Nganampa Health staff and staff of Ngaanyatjarra Pitjantjatjara Yankunytjatjara Women's Council.

**7.6.2.** If approved the computer program should be refined and presented to communities.

**7.7 Weekly stores box:** the weekly stores box, in its 3 component parts, needs to be purchased, photographed and rendered as an illustration for inclusion in the A1 whiteboard, the A3 booklet, and the colouring book.

**7.8: Education strategies and curriculum support material:** It is recommended that AP should consider that this project seek funding from DETE SA and other education bodies to develop further curriculum support material for school use.

In any case, education strategies about water conservation need to be developed and introduced at school level, including curriculum support material.

It is recommended that a colouring in book reinforcing healthy living practices be developed, as a low cost high interest item.

**NOTE:** The cd rom could be part of the curriculum support material

## Introduction to the project

This project set out to initiate work in the area of household resource management, including budgeting household resources, and use and care of household appliances.

In the early developmental stage it became obvious that the project needed to take a big picture approach. Household resources are part of resource management generally. To understand managing the water from a house tap requires knowledge of where water comes from. Assisting with budgeting requires an understanding of income, what anangu actually need to buy in the stores, and in turn, how much that costs. Research of material available revealed that there was no existing material which was appropriate for anangu use.

### ***The health context***

Any work in the area of household management is underpinned by the aim of enabling anangu to make healthy living choices. On the AP Lands, household management is a public health issue. The work of AP Services and UPK, the public health arm of Nganampa Health Council, are interrelated on the ground. The project continually refers to the 9 Healthy Living Practices of UPK, which propose that the most likely ways to improve the health status of anangu are for the people and their houses to have the capacity to<sup>1</sup>:

1. Be safe<sup>2</sup>
2. Wash children and adults
3. Wash clothes and bedding
4. Remove waste
5. Buy, store and prepare healthy food
6. Reduce crowding
7. Reduce negative contact between people and animals, vermins or insects
8. Control dust in the environment
9. Control temperature

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<sup>1</sup> These are our summaries of the 9 Healthy Living Practices. Refer *Uwankara Palyanku Kanyintjaku* Nganampa Health Council / SA Health Commission / Aboriginal Health Organisation of SA December 1987 for a complete explanation of the 9 Healthy Living Practices

<sup>2</sup> Originally this priority was called Reducing Trauma and rated last on the health priority list. Minor trauma such as cuts abrasions ets caused by broken building materials would still be a low priority, however the issue of immediate, life-threatening SAFETY has to be the highest priority.

### ***Taking results of research back to AP communities***

The project included information giving and information seeking. There was a need to take results of several significant pieces of recent research related to the project topics back to Anangu communities, who were the subject of that research in the first place.

In the first place the project draws on *Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia* July 1997 - notes prepared by Paul Pholeros for Nganampa Health Council detailing previous research and assumptions for estimating the energy and water required to be used in housing to ensure the ability of Anangu to carry out the most essential UPK Healthy Living Practices.

One of the issues for Anangu in budgeting household resources is installation of appropriate and energy efficient appliances as per UPK-initiated research reported in *Indoor Stoves for Remote Aboriginal Communities* (NTRC report #cat 97/8) and *Washing Machine Use in Remote Aboriginal Communities* (NTRC report # cat 97/3).

### ***Other information issues***

The project also supported and complements a concurrent Nutrition project carried out by the Ngaanyatjarra Pitjantjatjara Yankunytjatjara Women's Council.

The project brief was extended by AP Services to delivering information about the mooted introduction of additional metered power charges under a 'User Pays' system, as a result of an agreement between ATSIC and DoSAA of September 1997.<sup>3</sup>

### ***Cost of living***

Since 1986 there have been significant changes<sup>4</sup> on AP Lands to the extent that Nganampa Health Council and UPK, Anangu Pitjantjatjara (AP) and Pitjantjatjara Council have effectively put the system in place to address the first four issues of safety, washing clothes, washing people and waste-removal. AP Services is maintaining these in an

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<sup>3</sup> Anangu CDEP and community workers already pay for power (see Incomes and cost of living section - pay sheets summaries per community.)

<sup>4</sup> Pholeros, Rinow, *Torzillo Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia* Healthabitat 1993 p.ix and ff.

ongoing manner. The level of disease prevalence and morbidity continues to be higher than for a similar number of people elsewhere in Australia.<sup>5</sup>

In the early conceptual stage of the project<sup>6</sup> Stephan Rainow, Public Health Officer for Nganampa Health Council, suggested that given physical improvements since the 1987 UPK report:

- health hardware in houses is reasonably secure,
- a regional maintenance program is in place,
- implementation of the waste management program is on schedule,

then anangu may be finding blocks to healthy living practices in other areas, and these areas might include:

1. Personal income - capacity to buy nutritious food and personal health hardware items.  
Are these available and affordable locally?
2. Do anangu have sufficient personal income to run the health hardware of a house?
3. Capacity for storage in the house - once acquired can anangu store food and keep items like brooms and mops ?
4. Other issues with house and yard design, which might be made more friendly to clean and for storage.
5. Energy efficient appliances - are appliances appropriate and energy efficient?
6. Issues to do with the daily dynamic of the house - effect of overcrowding, anangu house usage patterns

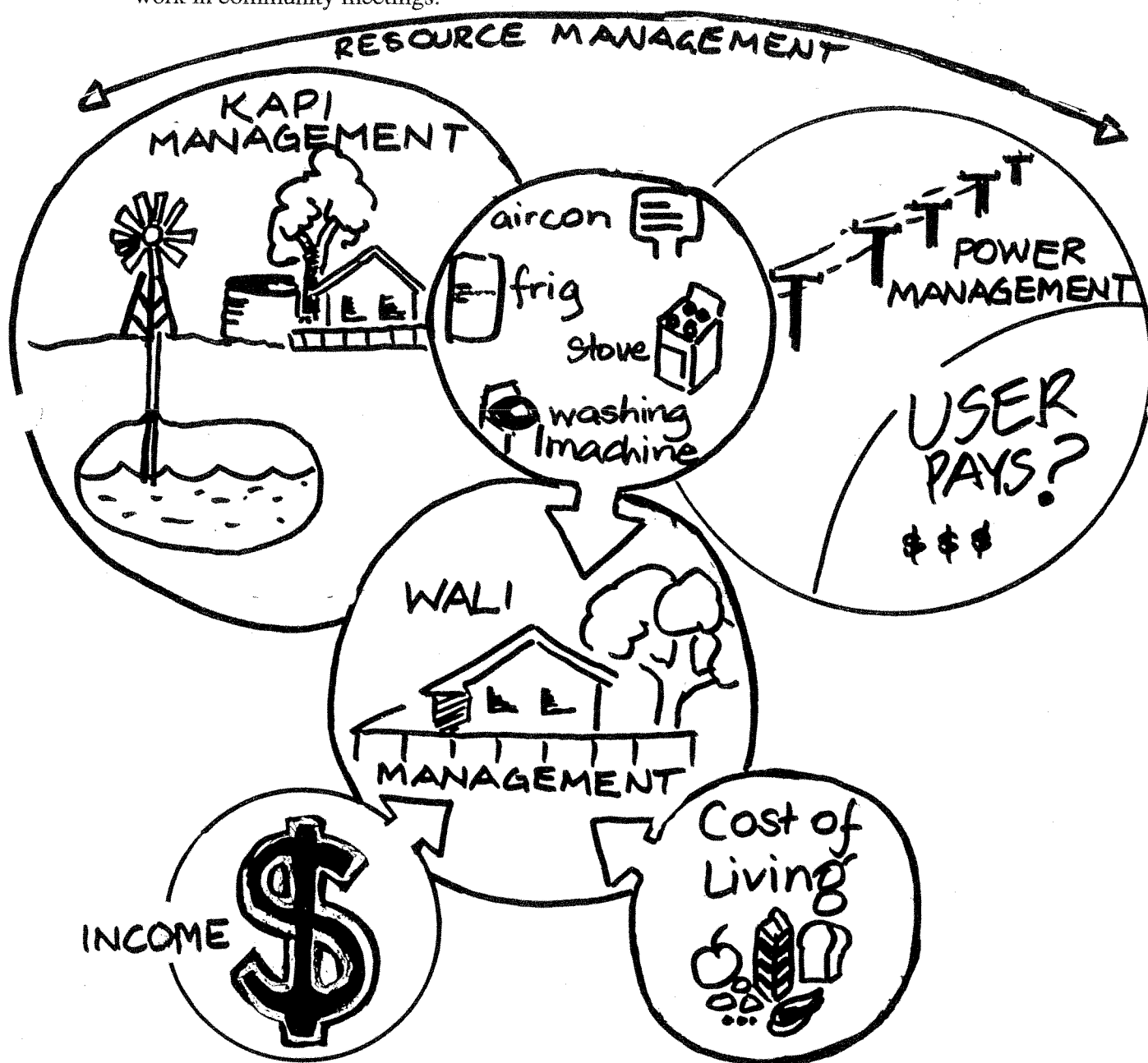
In identifying the issues for budgeting, and mapping the remaining blocks to anangu making healthy living choices, we were confronted in the first round of community consultations with the issue of anangu being unable to buy enough food from the store for families to eat, let alone what UPK terms 'personal health hardware' items like soap, shampoo, brooms and so on. Anangu refer to an institutionalised 'Mai wiya day' (no food day) when the money has run out and children and adults eat little, generally surviving on damper and tea. Across the Lands we found 'Mai wiya day' was three days long. This prompted research into incomes and cost of living, including the prices of particular items

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<sup>5</sup> Commonwealth of Australia *Australia's Health 1996 - Fifth Biennial Report of Australian Institute of Health and Welfare* AGPS Canberra 1996 p112 ff

<sup>6</sup> See Kutjara: Household Resource Management on AP Lands First Monthly Report 13 mar 98

prompted research into incomes and cost of living, including the prices of particular items in community stores. This is a visual description of the project that was used to explain the work in community meetings:



The reports on these overlapping but separate areas are presented in separate sections in this folder, following. Each section contains recommendations including future work in that area. Subsequent reports may be added in to the appropriate section during the second stage of the project.

## Methodology

The project as specified by AP Services covered 16 X 2 person weeks, including 8X 2 person weeks of research and reporting and 8 X 2 person weeks of actual delivery on AP Lands.

### **Conceptual development**

Because the project called for a new approach it was important that the basis for developing protocols and the methodology was sound. There was a good deal of conceptual development involving AP Services staff, Nganampa Health Council and UPK staff, and community members. The project team researched other relevant campaigns, publications and visual communications as set out in the References at the end of this report. The conceptual framework was trialled in the first round and after receiving endorsement this framework was continued.

In developing this project we were conscious that it forms the first part of what may develop into a coordinated campaign across AP Lands. Part of this campaign will be aiming for a degree of behaviour change, recognised as a delicate and difficult thing to achieve in any group. The 1987 UPK Report flagged some of the issues:

*A major finding of the review is the crucial role of management in the maintenance of public health on the lands..... Healthy living practices are impossible without the necessary health hardware (including income). However, usage is the final link in the pathway. Behavioural change is necessary if anangu are to live healthy lives in the new environment of permanent camps and houses.<sup>1</sup>*

For this campaign to be successful it will have the following characteristics:

1. A strong conceptual base, which will be designed specifically for this client group (the Pitjantjatjara, Yankuntjatjara and Ngaanyatjara people living on AP Lands) but will also need to inform other community employees.
2. Information limited to reinforcing key information about relevant issues.

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<sup>1</sup> Collings et al *Report of Uwankara Palyanku Kanyintjaku An Environmental and Public Health Review within the Anangu Pitjantjatjara Lands December 1987* Nganampa Health Council, South Australian Health Commission Aboriginal Health Organisation of SA p.7



3. The message(s) reinforced in an interesting way in a variety of appropriate media. A single medium, like a poster or a video, has little real impact, nor does a single encounter with the message.
4. Common images of the visual language that has been built up since early UPK days should recur to reinforce the message.
5. The tone or theme to be informative not pedantic, engaging and fun where possible. The aim is to give information to the client group to make their own decisions about issues which impact on their lives. We do not aim to prescribe behaviour but assist in making healthy living choices.
6. The budget needs to be justified by the result. Handmade posters photocopied were seen to be as effective as say 4-colour printed posters of the same size, which would have been unaffordable.

## **Stages**

The stages of the project were:

1. Preliminary - research.
2. The first weeks of meetings commenced on February 16. Meetings were held at Pipalyatjara, Kalka, Wataru, Kanypi, Amata, Ernabella, Anilalya Homelands, Umuwa, Fregon, Mimili, Kenmore Park, Railway Bore and Indulkana, culminating with John Tregenza making a presentation to the AP General Meeting on March 10. A summary of issues raised by community members at these meetings is in the Community response section towards the end of this folder.
3. There was further research and conceptual work based on information from this stage. A survey of store prices across the Lands was commenced. (*See Store survey.*) This stage included further research, collation of material, development of posters and reports, design and production of reminder signs for washing machines and airconditioners, the conceptual design for a cd rom on Resource Management, particular research on nutrition, commencement of a computer program for Aboriginal Health Workers and other community workers to assess nutrition levels and store prices regularly.
4. Major community presentations were held between 22 June and 10 July including leaving behind signage for appliance budgets
5. Preparation of reports and records, contracting and completing production of pilot cd, completion of nutrition computer program

## **Media:**

Communication and information-giving across the Lands has diminished with the demise of community radio, only building up again now with the launch of Radio 5NPY. There are limitations to many forms of communication on AP Lands:

- **Print:** Literacy levels indicate print will reach limited numbers<sup>2</sup>.
- **Paintings:** We are wary of 'feel good' communications like dot paintings that make consultants feel good but have no value for Anangu apart from some income for the artist.
- **Videos:** can be costly to make, have a limited life if a subject passes away, and deteriorate rapidly with high levels of use. Videos are also limited to organisations and families with video players.
- **Radio:** The new radio 5NPY is very popular and has the potential to reach a large audience across the Lands. Radio works well for reinforcement, but is not the best primary source of information where there is a need to impart a lot of information. We anticipate developing resource management segments to reinforce the campaign.

## **INFORMED DISCUSSION IN PITJANTJATJARA**

We identified the most effective primary medium of communication as informed discussion in Pitjantjatjara, via **public meetings** and **specialist meetings** as appropriate with community councils, health staff and office staff. Visual aids were designed to deal with each topic. These meetings were organised in advance by telephone calls to key members of each community and notices faxed to community offices. Times were kept flexible to enable the maximum number of people to attend. Most public meetings were held outside in community meeting places. Other meetings took place in individual workplaces.

Every meeting was conducted in Pitjantjatjara. It was a conscious decision to deliver key elements of the campaign in Pitjantjatjara: Pitjantjatjara is a common language of the main client group, who may also be Yankunytjatjara and Ngaanyatjarra speakers, but who speak

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2 Tregenza, J&E, with Yami Lester *Report on Bilingual Testing of Employees of PYN Council for the PYN Council Industrial Award. 1992* Results of Bilingual testing carried out in 1991 by Kutjara with Yami Lester for the Pitjantjatjara Yankunytjatjara Ngaanyatjarra Council showed that while far more Pitjantjatjara speakers spoke English than English speaking employees spoke Pitjantjatjara, the level of English was estimated to be less than a reading age of 9 in most cases. This is not an indictment of the speakers, but clearly English is of limited use in any in-depth discussion or information giving.

English as a second language in all but very few cases. English was thought to have limited value as a language of discussion, and we wanted the product to be pleasing to Anangu. MSO's and office staff received separate explanations in English to a certain extent, but more intensive workshops are recommended.

## **Delivery**

Delivery was underpinned by the philosophy of 'no research without service'. The aim was to provide a service to community members and leave tangible, useful products of the project in every community. The visual material and other media described below have been developed and trialled with a campaign in mind. A range of visual material in sufficient quantities to reach all adults has been produced at low cost. The products generated include:

- **Information** through the community meetings conducted in Pitjantjatjara,
- **The travelling whiteboard:** A series of laminated A1 (600 X 840 mm) posters (See A4 samples attached) was designed for the second round of public meetings. These deal with the following topics, relating each one to the health context:

Kapi - Water use in an Anangu house<sup>3</sup>

Power - Energy use in an Anangu house<sup>4</sup>

Stoves - Finding the right stove for Anangu houses<sup>5</sup>

Washing machine - Using the washing machine in Anangu houses<sup>6</sup>

Airconditioners - Making airconditioners work for Anangu houses<sup>7</sup>

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<sup>3</sup> Developed from Paul Pholeros' drawings and research for Nganampa Health Council :*Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia* July 1997

<sup>4</sup> Developed from Paul Pholeros' drawings and research for Nganampa Health Council :*Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia* July 1997

<sup>5</sup> Developed from UPK Report Nganampa Health Council 1987, Pholeros, Rainow and Torzillo *Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia* Healthabitat 1993, Tietz and Peter, ed Lloyd - *Indoor Stoves for Remote Aboriginal Communities* NTRC Report # cat 97/8 Centre for Appropriate Technology 1997  
Information provided by Eric Sultan

<sup>6</sup> Developed from UPK Report Nganampa Health Council 1987, Pholeros, Rainow and Torzillo *Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia* Healthabitat 1993, Lloyd - *Washing Machine Use in Remote Aboriginal Communities* NTRC Report # cat 97/8 Centre for Appropriate Technology 1997

<sup>7</sup> Developed from material supplied by UPK Nganampa Health Council 1998,

Wages - Anangu income story<sup>8</sup>

Store - Cost of living in AP communities<sup>9</sup>

- **Booklets:** A3 versions ( See A4 samples attached) of this set of posters were left in each community in appropriate places, usually in the community office and the Nganampa clinic, and in the Women's Centre where possible. The A3 versions were introduced in community meetings first.
- **Signs:** 'How to use' reminder plaques for airconditioners and washing machines etched into anodised aluminium each measuring 150 X 125 mm, were designed and produced. These signs will be attached to every washing machine and airconditioner on the Lands during AP Service's normal maintenance rounds. The signs have attracted a good deal of interest; one feature is that they are entirely in Pitjantjatjara. In future instruction signs may be developed for other appliances.
- **Food basket:** a nutritionally balanced food basket for a family of six was developed.
- **Store prices/nutrition computer program:** a computer program for use by AHW's and others to check store prices and nutrition levels of different food baskets
- **cd rom:** a pilot cd rom for development as a resource management information tool

#### **RECOMMENDATIONS RE SIGNS, POSTERS, NEED FOR WORKSHOPS**

**Signs:** It is recommended that the signs be put in place as quickly as possible, to maintain the high level of interest about the signs. Ideally Stage 2 of the project will include an evaluation of the signs and recommendations about signs for other areas if appropriate.

**Posters:** It is recommended that A2 versions of these posters be copied and laminated for use as posters in community offices and Women's Centres. Ideally colouring the posters and laminating them could be an activity for women's, art and craft and CDEP groups as appropriate and where the equipment is available. This would assist with reinforcement of the message to key people.

**Workshops for community staff,** other than Anangu staff or Nganampa Health staff:  
It is recommended that special intensive workshops are held for community staff, ideally

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Pholeros, Rainow and Torzillo *Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia* Healthabitat 1993,

Information supplied by Geoff Zerna, Parafield Airconditioners

<sup>8</sup> Tregenza, Kutjara

<sup>9</sup> Tregenza, Kutjara

gathered together in one or two locations. The information conveyed to Anangu is critical for staff as well. While most community staff attended meetings, the meetings were conducted in Pitjantjatjara, so there would have been imperfect understanding by most staff. There is a need for coordinated support for the campaign from MSO's and others and some people need to be made aware of all the issues.

### ***Community response***

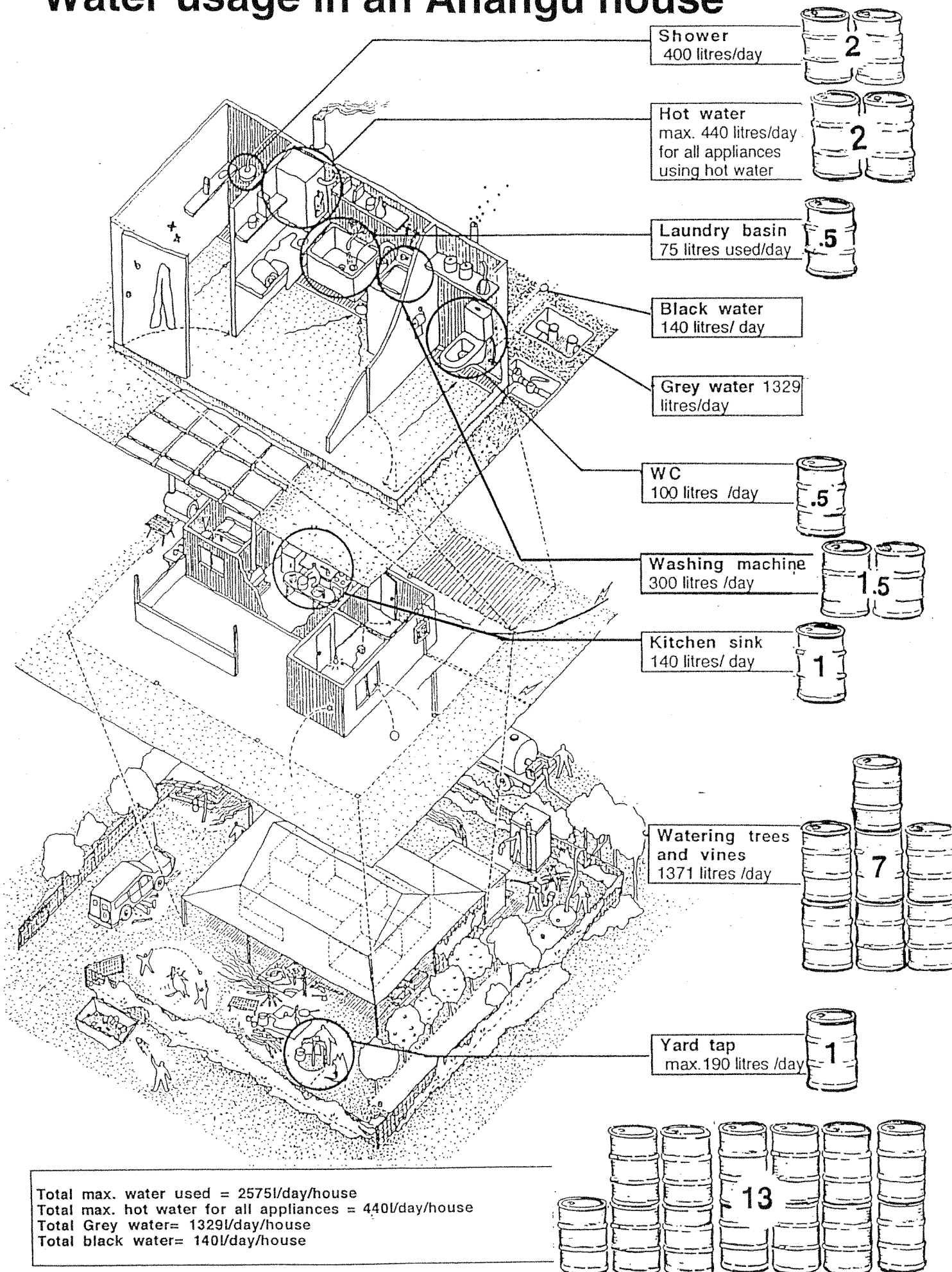
Anangu voted with their feet. Attendance at meetings was higher than anticipated, in all weather conditions. (The second round of meetings was conducted mid-winter). Meetings were mostly held in an open area outside, often the customary meeting place for that community, and would start slowly when a core of people had arrived. Others would join the meeting and they stayed to listen. It was common for people to linger afterwards to talk over issues. It was common for people to contribute, sometimes at length. It was clear that Anangu were hungry for information and welcomed this information about real issues concerning their daily lives. A list of specific community responses from the two rounds of meetings is included in this folder.

The project was put up for approval at every meeting and at every meeting Anangu endorsed the work and asked for it to continue.

It seemed significant that in 25 years of holding community meetings this was the first time that John Tregenza had received applause from the audience, and he was applauded at several meetings. He attributed this to both the relevance of the information to peoples' daily lives and the vacuum of information that exists for anangu.

# Kapi

## Water usage in an Anangu house



## Resource management - water

The quantity and quality of water supplies has been repeatedly identified as an important environmental health issue. 'Insufficient water may contribute to scabies, trachoma, gastroenteritis, skin infections and ulcers. Poor water quality may be a cause of infection.'<sup>1</sup> On AP Lands in 1987 UPK<sup>2</sup> identified the two practices most likely to improve Anangu health status as:

No 1: The ability to wash people, and

No.2: The ability to wash clothes and bedding.

For Anangu Pitjantjatjara communities the significance of sufficient and potable water supplies takes on extra meaning in a remote and arid landscape where the full extent of aquifers is only now being mapped by Australian Geological Survey Organisation (AGSO), and examples of water scarcity and bore contamination have been identified.<sup>3</sup>

### ***Taking research back to the community***

The first requirement of this part of the project was to convey the findings of research by Paul Pholeros for Nganampa Health Council *Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia* (July 1997) This research estimates, from a variety of detailed research projects over 10 years, the litres of water and kilowatt hours of power used in an anangu house on AP Lands, over 24 hours, and over one year. The report highlights areas of peak usage of power and water and compares efficiency of different methods of heating. (Please see the work cited for a full account of the findings.)<sup>4</sup>

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<sup>1</sup> Commonwealth of Australia *Australia's Health 1996 - Fifth Biennial Report of Australian Institute of Health and Welfare* AGPS Canberra 1996 p112 ff

<sup>2</sup> Collins, Dr M et al *Report of Uwankara Palyanku Kanyintjaku - An Environmental and Public Health review within the Anangu Pitjantjatjara Lands* Nganampa Health Council Inc, South Australian Health Commission, Aboriginal Health Organisation of SA 1987 p. 8 ff

<sup>3</sup> Survey and assessment of quantity, quality and current effectiveness of the waste systems required under SAHAC legislation in Pitjantjatjara, by Nganampa Health Council in conjunction with the University of Wollongong, ATSIC, SAHC, Healthabitat and the Pitjantjatjara community and staff. Work carried out in 1995/96

The amount of water used through different outlets in an anangu house and a comparison of those amounts is shown by Pholeros in an axonometric drawing which was used as the basis for the pictorial demonstration to anangu, with the amounts translated into 200 litre or 44 gallon drums, and the whole enlarged to A1 size. (*See A4 sample following*)

In the meetings held in AP communities it was emphasised that managing water did NOT mean showering and washing less, but careful use especially of peak areas like the outside tap.

### ***Developing a water management strategy***

The research points to the need for anangu to develop water conservation and management strategies. Assisting anangu to develop such strategies begins with an explanation of the hydrological cycle and moves through all aspects of the water story and related technology. Note that Pholeros, Healthabitat and UPK have identified the need for water and power monitoring on every house as a minimum, and ideally every building/tank etc, to enable accurate water and power management strategies to be developed. As well as careful use of water, the importance of fixing leaks and failed water equipment is stressed.<sup>5</sup>

In developing the kapi (water) story we looked to research carried out by John Tregenza for UPK in October 1997 which, among other tasks sought to establish a conceptual framework for the delivery of information about water by recording any anangu management practices or tjukurrpa lessons in relation to water resources.

Traditionally anangu have been careful managers of water, assiduous in the care of rockholes and other water sources. The water story developed for community information starts iriti, in ancient times, to underline the importance of water. It is a simple overview but includes mention and/or brief explanations of:

- the importance of water
- traditional Anangu water management
- hydrological cycle ( exchange of water between atmosphere, earth surface and underground) including filling of aquifers
- Two kinds of aquifers:

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<sup>5</sup> Paul Pholeros communication: Comments on Resource Management Folder Information 21.8.98



1. intergranular (water-retaining sand or soil) which is shallower and replenishes more quickly,
  2. deeper older deposits trapped in rock formations, like underground tanks.
- Soaks, wells and bores: the significance of this part of the story is that while soaks and wells tap groundwater nearer the surface that replenishes with some regularity, bores tap older water supplies deeper underground, that do not replenish at the rate at which they are being used, if they replenish at all.
  - Methods of pumping water: windmills, electric pumps, solar pumps. ( Subsequent information may deal with care and maintenance of bores and mills - the cd rom (See cd) has the capacity to deliver this information)
  - Water reticulation to tanks, then houses and communities
  - House water use (as per Pholeros research above)
  - Water conservation around the house, especially kids wasting water

These topics formed the basis of the water story delivered in public meetings and smaller meetings. The story was delivered in Pitjantjatjara with diagrams by hand on a whiteboard. John Tregenza also talked about hydrological exploration being carried out by AGSO to establish the extent of underground water supplies.

Communities have been left with the message that people need to be conscious that their water supply may be critical and further information will be forthcoming.

Concurrently, from Stage 3 of the project onwards, Kutjara designed the storyboard and illustrations for a pilot cd rom which has the capacity to cover aspects of resource management across the board but at pilot stage deals with the water story headings listed above. The pilot cd is now ready for trialling. For a full outline and rationale of the cd see cd rom.

## **RECOMMENDATIONS FOR FUTURE DIRECTIONS**

**Water monitoring:** Water monitoring is a key management tool, ahead of and essential for any education about water wastage. This could be done by

- rainfall monitoring
- bore production monitoring
- quality monitoring

- building monitoring (school, clinic, football oval etc)
- house monitoring<sup>6</sup>

**Information:** It is recommended that ongoing information be distributed to communities about their water supplies, including

- yearly collation of data for community water story,<sup>7</sup>
- collation and broadcasting of information from the hydrological exploration (as is presently being carried out by AGSO, but also including other information.)

**cd rom:** The water story needs to be developed to include the waste water story including ways of disposing of grey water and black water from the house, and dangers of potential contamination of aquifers.

**Education strategies:** It is recommended that education strategies about water conservation be developed and introduced at school level, including curriculum support material.

NOTE: The cd rom could be part of the curriculum support material because it should work for children and adults. School libraries seem good place to house copies of the cd rom, provided students have good access to it.

Colouring books are also identified as useful educational aids in this context, and can be produced inexpensively.

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<sup>6</sup> Pholeros: ibid

<sup>7</sup> Pholeros: ibid

# Power

## Energy use in an Anangu house

Chip heater  
To heat 440l of water:

14kg

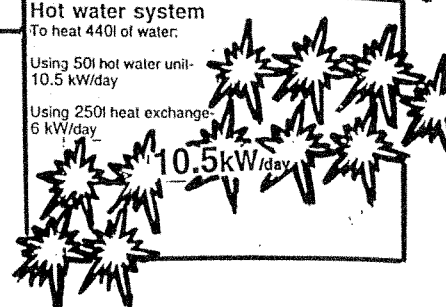


Hot water system  
To heat 440l of water:

Using 50l hot water unit-  
10.5 kW/day

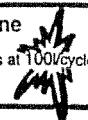
Using 250l heat exchange-  
6 kW/day

10.5kW/day



Washing machine

.5kW for 3 cycles at 100l/cycle



Outside oven

1.4kg

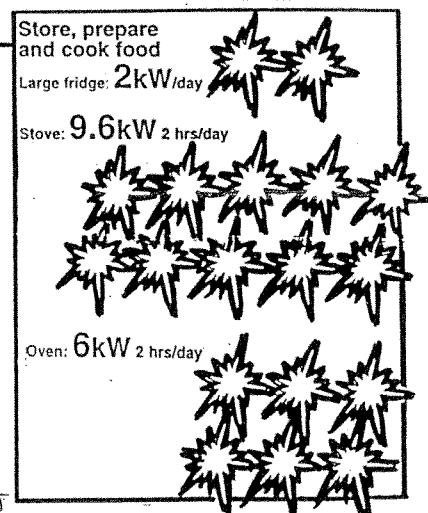


Store, prepare  
and cook food

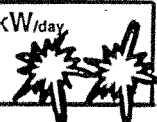
Large fridge: 2kW/day

Stove: 9.6kW 2 hrs/day

Oven: 6kW 2 hrs/day

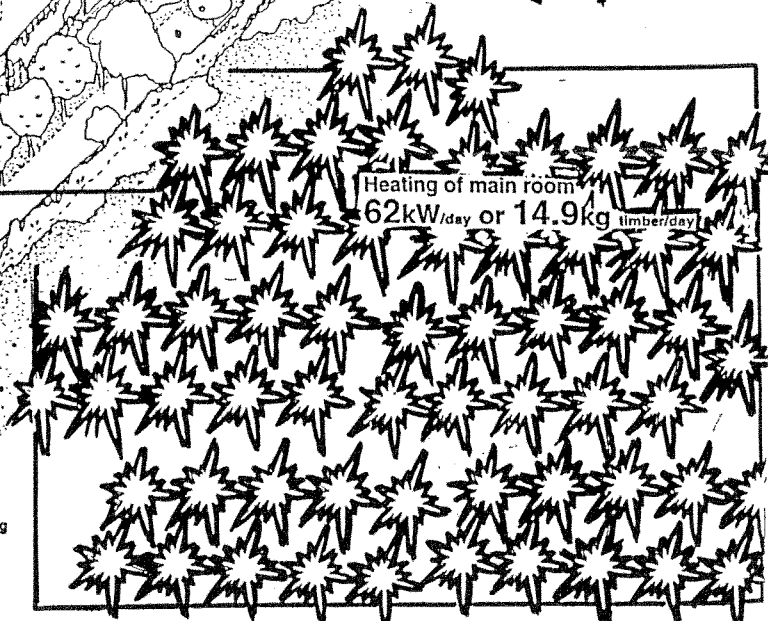


Lights 2kW/day



Heating of main room

62kW/day or 14.9kg timber/day



Total maximum electricity used per day = 92kW using  
electric 50l hot water unit.

Minimum = 88kW using 250l heat exchange unit

Total amount of timber used/day/house = 30.6 kg

Drawings and usage rates from Energy and Water Use Required for Health in Anangu Housing  
on the Anangu Pitjantjatjara Lands North West of South Australia  
Prepared for Nganampa Health Council by Paul Pholeros July 1997  
These visuals by Kujara consultants for AP Services Resource Management Project 1998:  
Taking research back to the community

## Resource management - power

The possible introduction of a User Pays system on AP Lands has significant implications for aspects of Budgeting household resources, especially in the light of recent research about anangu levels of power usage by Paul Pholeros and UPK. In the first weeks of the project Kutjara was asked to:

- prioritise the delivery of information about the possible introduction of further charges under a metered 'User Pays' system to AP Lands, in the wake of an agreement between ATSIC and DoSAA of September 1997,
- assess the potential impact of a User Pays system on communities, and
- take the findings of research by UPK and Healthabitat on power usage in an Anangu house back to communities, as shown in *Energy and Water Use required for Health in Anangu Housing on AP Lands*, notes prepared by Paul Pholeros for Nganampa Health Council. This paper details previous research and assumptions for estimating the energy and water required to be used in housing to ensure the ability of Anangu to carry out the most essential UPK Healthy Living Practices.

### ***Taking research back to the community***

The project utilised UPK house metering as set out in *Power Water and Health on AP Lands*. Power usage in different areas of an Anangu house and a comparison of those amounts is shown by Pholeros in the axonometric drawing reproduced following. The drawing was used as the basis for the pictorial demonstration to anangu, of kilowatt hour equivalents ( a starburst = a kilowatt hour) and the whole enlarged to A1 size.

### ***User pays systems***

Two methods of introducing User Pays have been suggested:

1. metering of houses with direct billing periodically or
2. meters operated by power cards

In either scenario the suggestion is that people who are unable to pay will have to go without power.

So far DoSAA have not provided usage rates or proposed charges under a User Pays system. Without this information any discussion is open to misinterpretation.

However UPK metering shows that projected anangu power usage could be relatively high, around 85kWh/day. Under the User Pays system operating in the Northern Territory we are informed that Aboriginal communities pay 18c/kWh for power. At 85kWh a day this represents approximately \$15 a day or \$105 + a week.

Anangu incomes do not enable anangu to pay more. (*Refer Cost of Healthy Living section.*) There is good evidence to suggest that the introduction of additional charges will lead to overcrowding. UPK has identified the need to Reduce crowding (Healthy Living Practice No 6) as likely to reduce any disease which is spread by infected, body surface secretions; in particular crowding has been shown elsewhere in the world to be a major determinant of the prevalence of respiratory infection/pneumonia in children and adults.<sup>1</sup> Another experience in other Aboriginal communities is that the introduction of User Pays has resulted in power disconnections for failure to pay, followed by households running extension cords through the community to access power from others. Clearly the introduction of User Pays is a health and safety issue.

While AP has been unable to obtain specific power costs for the generation of power on AP Lands we understand current costs for generation of power in cities is around 10c a kWh.

### ***User Pays is on the Anangu agenda***

Before a system of User Pays for power was introduced in Aboriginal communities in the Northern Territory, PAWA was funded to produce an extensive educational campaign including videos, cd rom and other curriculum support material for schools and community workshops.

One of the obstacles encountered in this area of the project was that DoSAA was apparently unwilling or was unable to provide information relating to power usage on AP Lands. There is still a need to clarify issues raised in *the Agreement for the Provision of Essential*

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<sup>1</sup> Nganampa Health Council Inc, SA Health Commission, Aboriginal Health Organisation of SA *Report of Uwankara Palyanku Kanyintjaku An Environmental and Public Health Review within the Anangu Pitjantjatjara Lands* December 1987 p 18

*Services Infrastructure in Aboriginal Communities in South Australia between ATSIC and DOSAA*, signed 4 September 1997.

The possible introduction of a User Pays system for power was a topic for discussion in the first round of community meetings across AP Lands commencing February 16. Currently Anangu are levied for power costs at \$5 per person on CDEP and other community wages. Depending on the number of wage earners in a house, each house may contribute from, say, \$5 to \$30 per week.

Anangu reaction to the possibility of user pays was incredulity followed by dismay and anger. The first response was 'How can we pay?' and often, laughter. This was followed by anger. Anangu are aware that they are the only group that does pay for power across the board on AP Lands, and they are the only group that has to do so out of personal income.

Anangu at every community directed AP to advise ATSIC and DoSAA that they cannot pay any more for electricity than they are already paying as they cannot afford to feed their families on current income levels. This was recommended in the interim report on this project

Currently the outcome of the proposal to increase charges appears uncertain. We understand DoSAA is advocating that communities bill State and Commonwealth government facilities, and Nganampa Health Council clinics and residences at a rate of 51c/kWh.

## **RECOMMENDATIONS ABOUT POWER**

1. **UPK:** This report supports the UPK recommendation that ATSIC and DOSAA be made aware of the need for:
  - I. All buildings to be retrofitted with energy/water efficient appliances/technologies.
  - II. An ongoing commitment to fund research and development into energy issues before any changes to charges are contemplated.
2. Monitoring power usage is a key management tool essential for education and the development of any resource management strategies. This could be done by metering:
  - fuel supplied
  - generator output
  - all buildings
  - houses, and
  - a wide variety of appliances for power use, as has been done for water use.

3. **Information:** It is recommended that AP continue to request DOSAA to inform AP about current usage rates for power, as a prerequisite for any further discussion.
4. **Resistance:** It is recommended that AP Executive resist vigorously the implementation of 'User Pays' on AP Lands - Anangu are paying for power already. Any increase in costs will have a direct and deleterious effect on the state of health on AP Lands.
5. **Information:** It is important that further educational information be delivered to communities as it becomes available, from political developments, to power usage of various appliances.
6. **cd rom:** The power story needs to be designed and put onto cd rom if the cd proves to be an appropriate medium.

# Airconditioners

## Making airconditioners work for Anangu houses

### UPK 9 HEALTHY LIVING PRACTICES:

No.9: The ability to control temperature must be considered. Extremes of temperature do affect the ability to resist infection particularly in young children and old people.

### Airconditioners help to keep cool, BUT

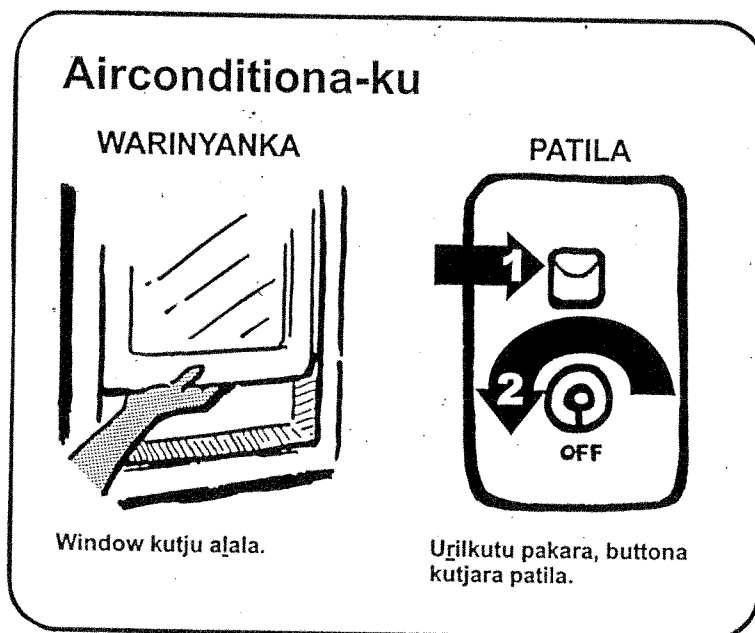
Airconditioners use more water than any other appliance, between 250-500 litres/day or 2 x 44 gallon drums a day. (UPK research)

#### REMEMBER:

- Airconditioners need regular cyclical maintenance. This is essential health hardware maintenance.
- Airconditioner function, bleed-off rates and valves need to be checked regularly.
- Airconditioners should be installed at the side of the house NOT ON THE ROOF.
- Runoff should be piped from the bleed-off to the fence boundary for trees and shrubs

### To keep airconditioners working it is important to:

- Open one window in each room a little bit
- Turn off both switches, fan switch and pump switch, when you go out of the house



AP Services is putting up these notices to help remember ways to keep airconditioners working

Information supplied by :

- UPK Nganampa Health Council
- Pholeros, Rainow and Torzillo Housing for Health-Towards a Healthy Living Environment for Aboriginal Australia Healthabitat 1993
- Geoff Zerna Parafield Airconditioners

These visuals by Kutjara consultants for AP Services Resource Management Project 1998: Taking research back to the community



# Washing machine

## Using the washing machine in Anangu houses

### UPK 9 HEALTHY LIVING PRACTICES:

No. 3: Clothes washing will reduce exposure of adults and children to faeces, secretions and the scabies mite.

Clothes washing is likely to reduce disease, in particular

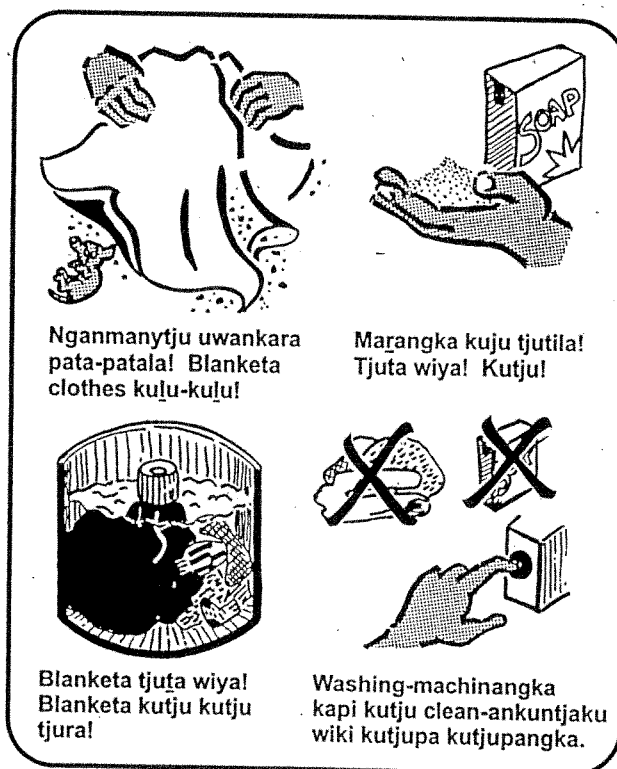
- i. skin infection particularly scabies
- ii. diarrhoeal disease

**Anangu use washing machines a lot**, 4 to 8 times as often as the Australian average. Anangu houses average 1100 washing cycles a year. Other Australian houses average 200 to 250 cycles a year.

- Domestic washing machines only last twelve months with this level of use.
- A good washing machine for high level use is the commercial top-loading Speed Queen washing machine (Results of Healthabitat and CAT research)

### To keep washing machines working, it's important to:

- Shake the dirt out of blankets and clothes first
- Use a little washing powder, only one handful each wash
- Wash just one blanket at a time, with a few other little things
- Once a week run the machine without clothes or soap, just water to clean the machine, like servicing a motor car



AP Services is putting up these notices to help remember ways to keep washing machines working

Information taken from:

- UPK Report Nganampa Health Council 1987
- Pholeros, Rainow and Torzillo Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia Healthabitat 1993
- Dr CR (Bob) Lloyd: Washing Machine Use in Remote Aboriginal Communities NTRC Report#cat 97/8 1997

These visuals by Kutjara consultants for AP Services Resource Management Project 1998: Taking research back to the community

# Stoves

## Finding the right stove for Anangu houses

### UPK 9 HEALTHY LIVING PRACTICES:

No. 5: The ability to store food, prepare and cook a healthy meal is clearly important in any nutrition strategy. The current lack of these facilities is a major factor in determining food choices for both adults and children.

**Stoves are used inside the house for cooking healthy food for all the family.**

AP Services wants to find the right stove for Anangu houses because stoves keep breaking down. AP Services needs to know why

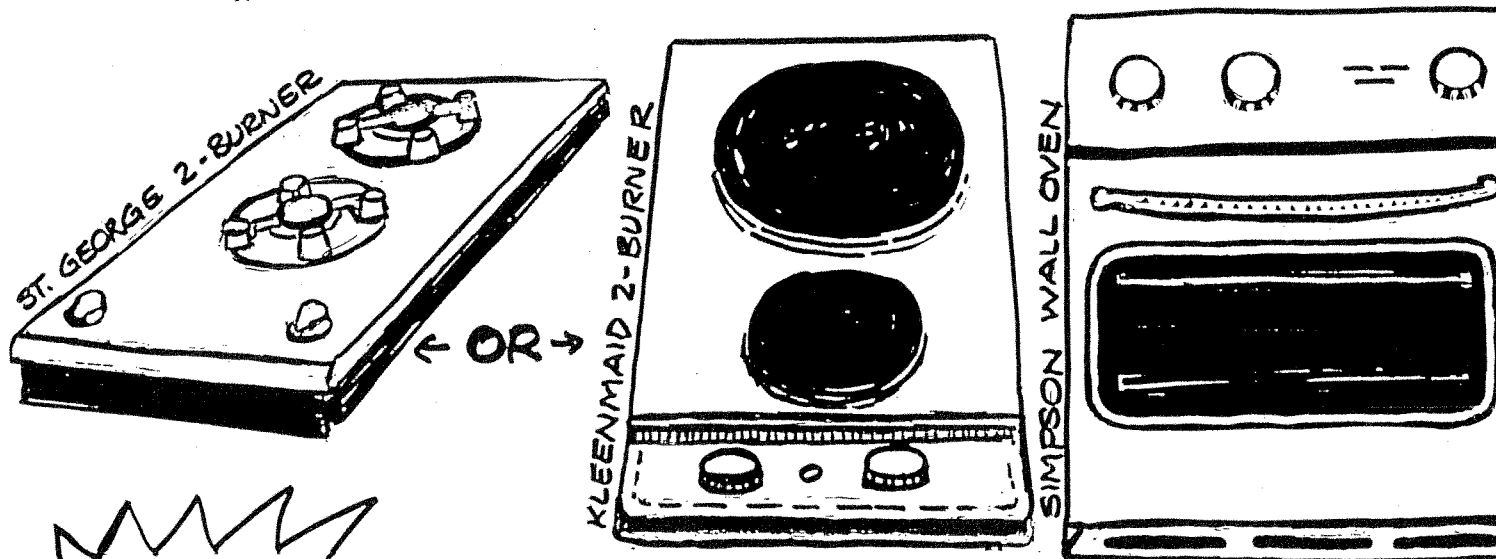
Problems seem to be:

- Knowledge about use, care and cleaning of cooktops and ovens
- Design faults like oven doors
- Burnt-out elements when ovens are used as heaters
- Missing grills and trays

*What other problems are there ?*

### RECOMMENDATIONS (CAT / UPK)

- Cooktop and oven should be separate
- Maybe NO inside oven - cooktop inside and oven outside
- If an oven is required inside, then there should be:
  1. a bench cooktop and wall-mounted oven OR
  2. an electric frypan



**REMEMBER** it is important to clean up all spilt fat and food after use

*AP Services will trial 2 or 3 types of stoves in each community. The aim is to standardise stoves and all other appliances across AP Lands*

Information taken from:

- UPK Report Nganampa Health Council 1987
- Pholeros, Rainow and Torzillo **Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia Healthabitat 1993**
- Christian Tietz and Sonja Peter, ed Lloyd: **Indoor Stoves for Remote Aboriginal Communities NTRC Report # cat 97/8 Centre for Appropriate Technology 1997**

*These stoves by Kallies consultants for AP Services Resource Management Project 1998: Taking research back to the community*

## Use and care of household appliances

The use and care of household appliances overlaps with *Budgeting household resources* and is part of the overall topic of resource management generally. This part of the project was approached within the health context with the aim, again, of anangu being able to make healthy choices in their daily lives.

### ***Kapi management***

In terms of water management within the house discussion centred around the results of research shown pictorially in the axonometric drawing by Paul Pholeros.<sup>1</sup>

In the meetings held in AP communities it was emphasised that managing water did NOT mean showering and washing less, but careful use especially of peak areas like the outside tap. (See also **Resource management - water**)

### **RECOMMENDATIONS**

**Information:** There is a need to deliver information about water on an ongoing basis. The next stage of information delivery should deal with information about removal of waste water, including different methods of effluent disposal, and the effects of water contamination.

**cd:** An outline of this information should be made available on the cd rom as an extension of the Water story on the pilot version.

### ***Power***

Community members were made aware of relationship between power usage and the cost of power. Note that this contradicts previous information given to Anangu, who have been encouraged, historically, to use more power by using electrical appliances to increase the load thereby reducing the strain on the local generator. Discussion dealt with these topics:

- the existence of alternative methods of heating and power generation
- metaphor of a house that uses a lot of power being like a V8 car that uses a lot of petrol
- the relative power usage of various appliances, and ways of increasing efficiency
- cost impost of user pays at various rates usually based on 20c/kwH<sup>2</sup>

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<sup>1</sup> Paul Pholeros for Nganampa Health Council :Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia (July 1997)

<sup>2</sup> Also refer Power section on page

Discussions of power management within the house are linked to the issue of User Pays - refer *User pays* in *Power* section

## RECOMMENDATIONS

1. **Information:** Communities need to be given information to do with power on an ongoing basis, as this is a basic energy source for Anangu communities. Information should cover all aspects, from political developments to do with User Pays to alternative power sources to new appliances.
2. The Power story needs to be further developed for inclusion on the **cd rom** if this is an approved medium.
3. **Curriculum support material:** AP should seek funding from DETE SA and other education bodies to develop further curriculum support material for school use.

## ***Appliances - airconditioners, washing machines, and stoves***

Currently AP Services fits Anangu houses with washing machines, stoves and airconditioners. Washing machines are also installed by Nganampa Health Service for public use in some clinics and community centres. There is a perceived high failure rate with certain stoves and some washing machines. Existing research on these household appliances, from UPK, Centre for Appropriate Technology and AP Services shows that the failure rate is mostly to do with high levels of use. It is noted that washing machines need to be installed properly in the first place. Washing machines should be connected to cold water only. Cold water is just as efficient, and this practice will save the hot water for washing people. Kutjara collated the main findings of this research onto A1 posters, and presented it at community meetings. (*See A4 version of posters following*)

The meetings were also used to elicit a range of information about the use of appliances, as were small group meetings and individual discussions.

## AIRCONDITIONERS

Airconditioners are health hardware items on AP Lands where temperatures regularly exceed 40 degrees for prolonged periods. UPK Healthy Living Practice No. 9: *The ability to control temperature must be considered. Extremes of temperature do affect the ability to resist infection particularly in young children and old people.*

The main issues identified for airconditioners are:

- they need regular cyclical maintenance
- function, bleed-off rates and valves need to be checked regularly
- airconditioners should be installed at the side of the house not on the roof, because of corrosion, and potential contamination of rainwater tanks, and, importantly,
- airconditioners may use more water than any other appliance, between 250-500 litres a day. (Also washing machines may use more water than other appliances.)

For this reason how-to-use signs reminding householders to switch off both the fan and pump switches when leaving the house were produced. (*See sample*) These will be affixed to walls near switches on the AP Services maintenance rounds. There was an immediate strong demand for signs when they were shown in community meetings

### WASHING MACHINES

Washing machines are key health hardware items. UPK Healthy Living Practice No 3: *Clothes washing will reduce exposure of adults and children to faeces, secretions and the scabies mite. Clothes washing is likely to reduce disease, in particular skin infection, particularly scabies, and diarrhoeal disease.*

There has been thorough research carried out on washing machines and their use, detailed in *Washing Machine Use in Remote Aboriginal Communities*<sup>3</sup>. We identified the key findings of this report as the high levels of usage by anangu, and the recommendation for commercial top loading Speed Queen washing machines as the most appropriate for use in remote Aboriginal communities. (*See A4 reduction of poster presented in community meetings.*)

Instruction plaques were also produced for washing machines to assist in keeping the machines working. After exhaustive research it was agreed that the four most useful reminder points are:

- Shake the dirt out of the blankets and clothes first
- Use a little washing powder, only one handful each wash
- Wash one blanket at a time, with a few other smaller items
- Once a week run the machine with water only, without clothes or soap.

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<sup>3</sup> Lloyd - *Washing Machine Use in Remote Aboriginal Communities* NTRC Report # cat 97/8 Centre for Appropriate Technology 1997

We illustrated these points with pictograms and translated them into Pitjantjatjara for the signs. Again, the signs were welcomed and there was strong demand for them at community meetings.

## STOVES

Stoves are health hardware items. UPK 9 Healthy Living practices No.5: *The ability to store food, prepare and cook a healthy meal is clearly important in any nutrition strategy. The current lack of these facilities is a major factor in determining food choices for both adults and children.*

Currently AP Services provides gas or electric upright stoves with ovens and four burner cooktops. There is a high failure rate of stoves. The main problems seem to be:

- Knowledge about use, care and cleaning of cooktops and ovens
- Design faults (a horizontal opening door on the Chef *Premiere* model has a particularly high failure rate).
- Elements burning out when ovens are used as heaters
- Missing grills and trays

The Centre for Appropriate Technology has researched the issue, documented in *Indoor Stoves for Remote Communities* <sup>4</sup>. In general this report recommends that the cooktop and oven should be separate, and that if an oven is required inside there should be a bench-mounted cooktop and wall-mounted oven. In many cases a two-burner cooktop is an appropriate option. The report also points out that an electric frypan can be an appropriate alternative to an oven.

These options as recommended by CAT were put to community meetings and affirmed at every meeting. There is some debate about ovens. It is the view of the electrician, and observation suggests, that cooking methods do not always warrant installing an oven, especially if a drum oven outside is available. BUT this is only an option in communities where wood is available, ie delivered regularly. In a community where little or no wood is available drum ovens are of no use.

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<sup>4</sup> Tietz and Peter, ed Lloyd - *Indoor Stoves for Remote Aboriginal Communities* NTRC Report # cat 97/8 Centre for Appropriate Technology 1997

There seems to be some ambivalence about the issue of gas versus electric power, which seems to be a matter for personal preference. In both cases householders said they need to be shown how new stoves work when they are installed.

### RECOMMENDATIONS ABOUT STOVES

1. It is recommended that AP trial two or three combinations of the options recommended in the CAT report in each community, as the need arises to replace stoves.
2. These trials to include metering the use of wall ovens.
3. Both gas and electric options could be trialled, but there is a need to give users information about using gas appliances.
4. The placement of wall ovens should be negotiated individually with householders with outside drum ovens as a preference in communities where wood is delivered.

### HEATING

The issue of heating options was raised in the context of the introduction of User Pays, and household appliances. UPK research<sup>5</sup> shows that the highest level of power usage in the house is in heating the main room. As an introduction to the concept of managing power resources Tunku introduced the 'manyu' house which uses a lot of fuel like a V8 motor car uses a lot of fuel. This simile was enjoyed by anangu - it was readily understood and was repeated in meetings.

We note here, as in the Power section, that the whole concept of conserving power goes contrary to information that anangu have been given in the past. Historically anangu have been encouraged to use more power by using electrical appliances to increase the load thereby reducing the strain on the local generator.

There can be significant reductions in power usage by using more efficient appliances, for example heat exchange hot water heaters instead of electric hot water systems. In *Power* this report recommends support for further research and development in this area, and retrofitting more efficient appliances on houses.

The issue of wood as fuel needs to be re-visited. Wood is efficient and traditional. UPK research on available fuel sources indicates that wood is the most efficient especially for heating, and communities should be encouraged to plant renewable firewood sources.

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<sup>5</sup> Paul Pholeros for Nganampa Health Council :*Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia* July 1997

## **RECOMMENDATIONS: TRIALLING THE cd**

The cd needs to be trialled to establish its effectiveness as an educational tool for anangu Pitjantjatjara, both adults and children, and to assess the appropriateness of the storyline and other components. (NOTE: Some elements of the storyboard have been trialled already in community meetings and discussions)

It is recommended that trials be conducted in every community in small group sessions during the next stage of the project.

### **Performance indicators:**

Assessment of the cd should be by

- the Director and Coordinator of AP Services
- a broad sample of anangu Pitjantjatjara
- the designers and producers themselves (ie Kutjara and Mediant)

It is recommended that the cd be assessed against individual questionnaires to be devised in the next stage of the project, and filled out by the consultants or anangu consultants during discussion after using the cd. The questionnaire should include criteria about:

- aesthetics
- content including storyboard
- construction and ease of use
- success or otherwise of interactive components

## **RECOMMENDATIONS: FURTHER DEVELOPMENT**

On approval of the pilot AP should seek funding to complete the other areas of resource management allowed for on the cd, including

- the remaining part of the water story from waste water to aquifer contamination
- the power story including alternative sources of power
- safety material
- other material allowed for according to priorities



## Household resource management - stores

Although the project did not set out to examine the impact of store management on health the work involved with developing the incomes and cost of healthy living *story (refer section following)* raised some issues which seem to require AP attention.

A simple store survey method was devised to answer the question “Can people afford to be healthy?” Firstly, most anangu get most of their foodstuffs from community stores. Bush tucker is more a weekend treat than part of the staple diet, because most tucker is now too far from communities to walk for it and few people have access to vehicles.

As discussed in the Cost of Living survey a weekly store box of goods, identified as necessary for healthy living, was developed for the hypothetical family of six, and these items were priced from the community stores on the Lands.

This weekly store box contains has three groupings of items considered basic and necessary to establish and maintain a healthy lifestyle for the family:

1. The first group, referred to as personal health hardware items, includes the larger and thus periodic expenditures such as brooms, mops buckets, blankets, clothing, cooking utensils and so on.
2. The second group, referred to as health consumables, consists of necessary cleaning agents such as soaps, shampoo, disinfectant, washing detergents, toilet cleaners, home medications etc.
3. The last group comprises foodstuffs and is called the food basket. The food basket was developed in consultation with Roy Price, Senior Nutritionist for Territory Health Services based in Alice Springs. It represents a nutritionally-balanced diet allowing 25% for wastage which is generally accepted in Aboriginal communities.

The cost to the family to purchase the food basket, the health hardware items and health consumables was established by surveying the prices of the items in the community stores. All stores on AP Lands were surveyed once around the same time, in February/March, as follows: Pipalyatjara, Watarru, Kanyipi, Amata, Pukatja, Kaltjiti, Mimili, and Iwantja. Wingellina (cited as the preferred store for western communities) and Coles and K-Mart in Alice Springs ( as regional service centre) were also surveyed for comparison. An average price for each item was calculated and then collated to give a regional average cost of healthy living on AP Lands. An impression was formed of quality and range.

It must be said, firstly, that store managers without exception contributed to the survey and expressed their concern for anangu health. One or two stores had special sugar free sections. In general at the time of the survey it was possible to maintain a balanced diet in quality and quantity from any of the stores in the larger communities. A few items, like plugs and fluorescent light globes, were not available, but most items on the lists were available in most stores.

However issues raised by the survey, (and the fact that these observations are borne out by other studies on AP Lands and other areas) point to the need for the development of a Regional Stores Policy. This need was reinforced by community members requesting action over store issues. The most important issues in this category appear to be:

- The generally poor range and quality of fruits and vegetables. This was a real variable, ranging from plenty of fruit and vegetables of various types in two stores to not being able to find a lone cabbage and three potatoes in another store. (Correspondingly where good quality fruit and vegetables were observed anangu were buying in large quantities.)
- Siting, location of food groups within the store - usually the most unhealthy foods are made the most accessible.
- Despite the goodwill evinced, there seems to be a need to raise the level of understanding of some storekeepers, of what constitutes a nutritious diet, and of the preferences of shoppers. (eg Anangu do buy good quality fruit, and are discerning about the quality of goods in general).
- Prices are not shown on goods in some stores.
- In one community the cash register was not used in the store.
- Regional average prices are 23% higher than in Alice Springs - some items are singularly over-priced.
- There are no sales or specials which exacerbates the 23% average price difference.
- Factors including the pricing systems, and prices not being displayed, make it difficult to approach shopping within a budget or to calculate a budget for a household over a week.
- The amount of Coca cola and other cool drinks being consumed in the community especially by children is a nutrition issue.

- Very little anangu involvement in store operations including employment
- There is an increasing number of non-local, non-Aboriginal staff employed in stores, which is paid for by the community in higher prices.
- There appears to be a lack of any effective controls over store management and store policies by local councils who are in fact responsible for store operations and should be in control of management
- The general attitude by government and staff that stores are enterprises to make money for the community at the expense of the health of the community population.

#### **RECOMMENDATIONS - REGIONAL STORES POLICY**

Given issues raised in stores survey and the fact that at every meeting AP was requested to pursue a pricing policy and development of a regional stores policy for AP communities it is recommended that AP coordinate a Stores Policy meeting as a first step in developing a regional stores policy.

Comparison of food intake with RDI values

Name: Hypothetical Family of Six

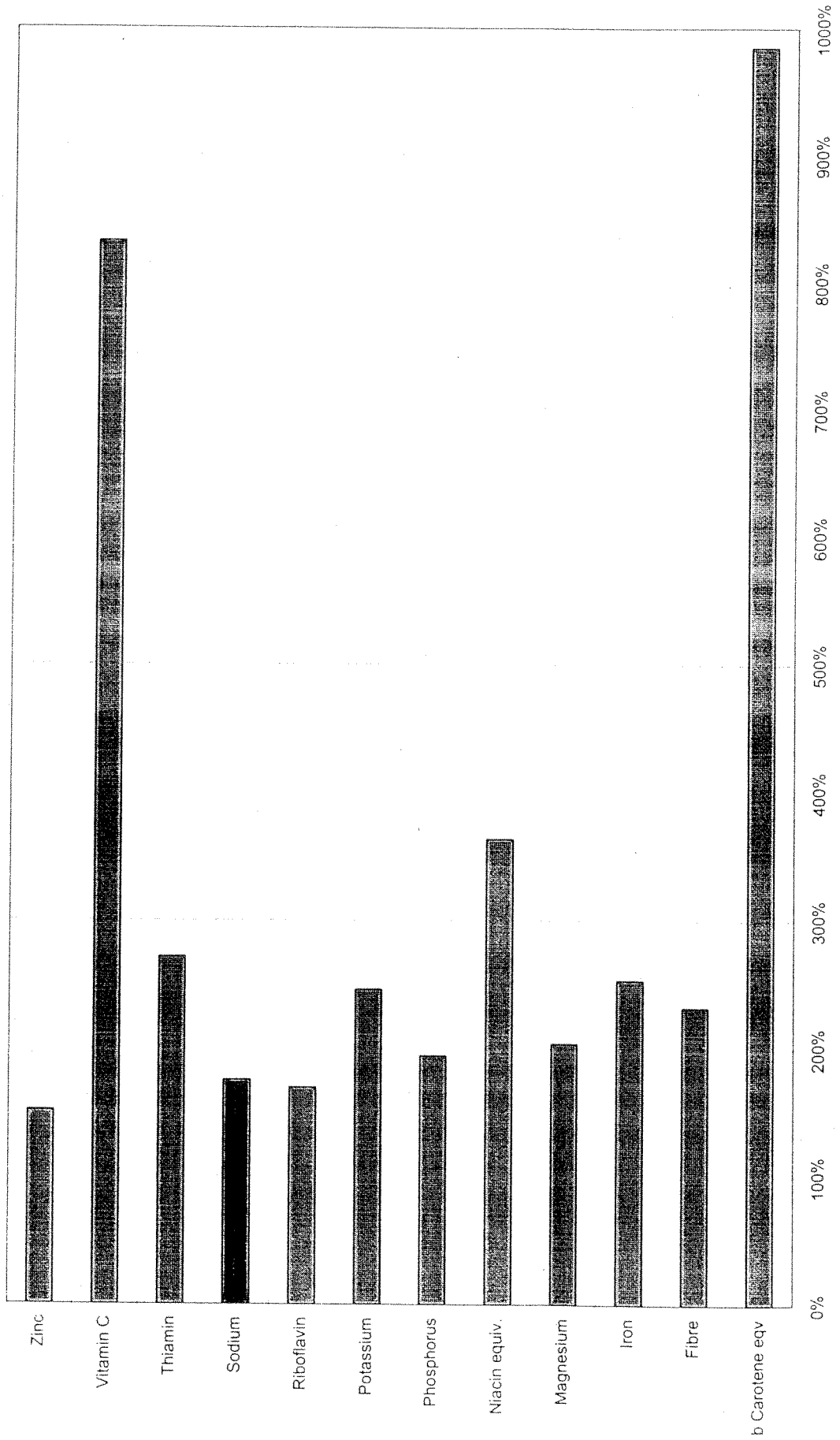
Food intake: Recommended Core Intake for a Week

Comments: RDI is composite for two adults, a four year old boy and eight year old girl, a 14 years old male and a woman over 54 years

Nutrient	Dad		Mum		4yo		8yo		14yo		14yo		1 day		7 days		Analysis of foods in basket above using Nuttab95	Nutrient	% achieve	% total energy
	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI	RDI					
Alcohol			0	0	0	0	0	0	0	0	0	0	0	0	0	0	Alcohol			
b Carotene eqv			750	750	350	500	725	750	3825	26775							b Carotene eqv	934.9%		
Calcium			800	800	800	900	1200	1000	5500	38500							Calcium	103.1%		
Carbohydrate										0	0						Carbohydrate		55.57%	
Cholesterol										0	0						Cholesterol			
Energy total										0	0						Energy total			
Fat										0	0						Fat		25.03%	
Fibre			30	30	0	0	30	30	120	840							Fibre	232.5%		
Iron			7	12	6	6	10	5	46	322							Iron	253.5%		
Magnesium			320	270	110	160	260	270	1390	9730							Magnesium	204.2%		
Monounsaturat Fat										0	0						Monounsaturat Fat		9.01%	
Niacin										0	0						Niacin			
Niacin equiv.			19	13	12	15	20	11	90	630							Niacin equiv.	363.4%		
Phosphorus			1000	1000	700	800	1200	1000	5700	39900							Phosphorus	194.3%		
Polyunsaturat Fat										0	0						Polyunsaturat Fat		4.42%	
Potassium			1950	1950	1560	1950	1950	1950	11310	79170							Potassium	246.1%		
Protein			55	45	18	27	42	45	232	1624							Protein	320.3%		
Retinol										0	0						Retinol		16.77%	
Riboflavin			1.7	1.2	1.1	1.3	1.8	1	8.1	56.7							Riboflavin	169.5%		
Saturated Fat										0	0						Saturated Fat		9.16%	
Sodium			2300	2300	1730	2300	2300	2300	13230	92610							Sodium	173.4%		

[illegible]

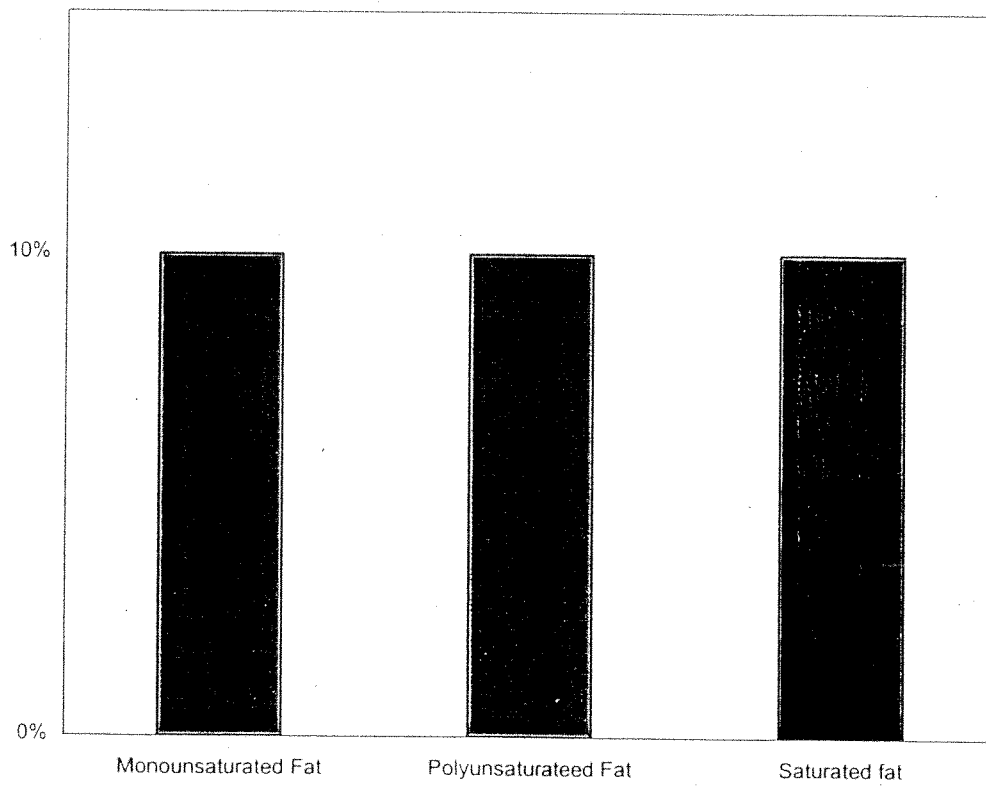
Contribution by Micronutrient - AP Food Basket



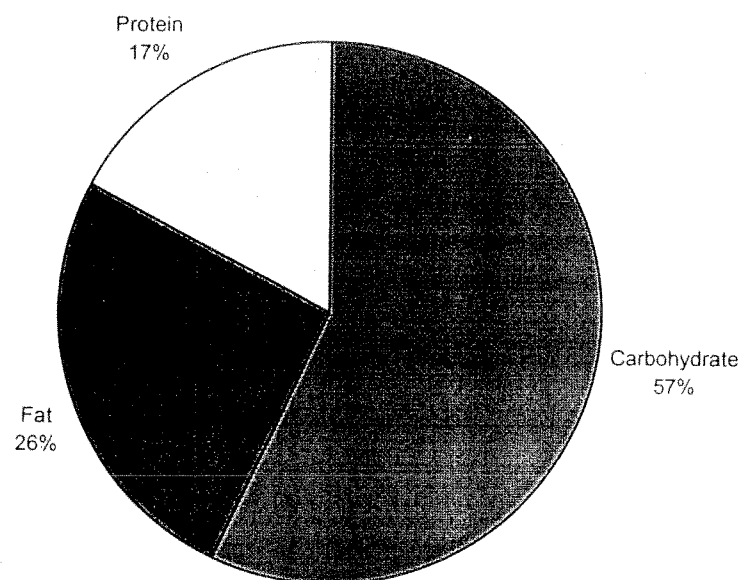
Contribution by Type of Fat - AP Food Basket



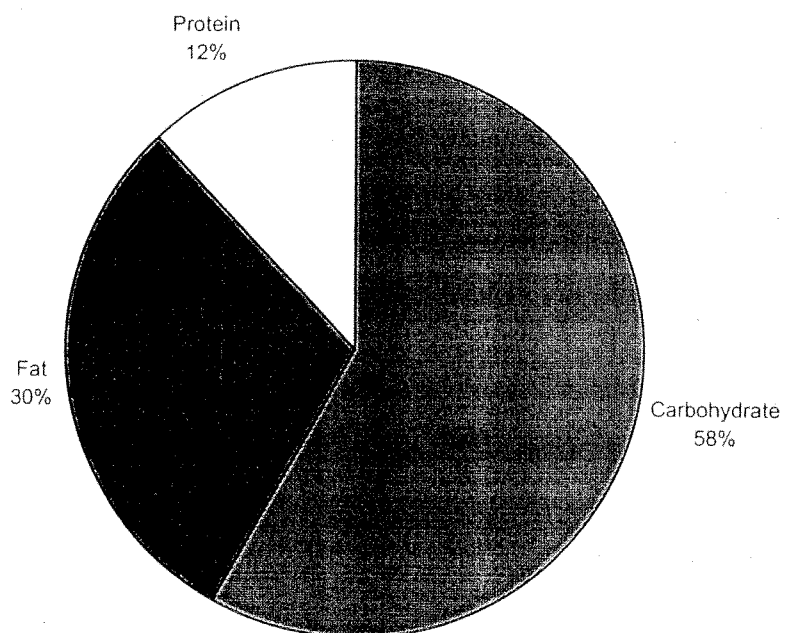
Contribution by Type of Fat - Ideal



Energy Contribution by Macronutrient - AP Food Basket



Energy Contribution by Macronutrient - Ideal





# Wages

## Anangu income story

community



**C.D.E.P.**

FULL PAY

LESS  
GOVERNMENT  
TAX

Less COMMUNITY  
DEDUCTIONS  
Rent  
Power  
Water  
Funeral  
Christmas

WAGES  
in HAND

**BEST**

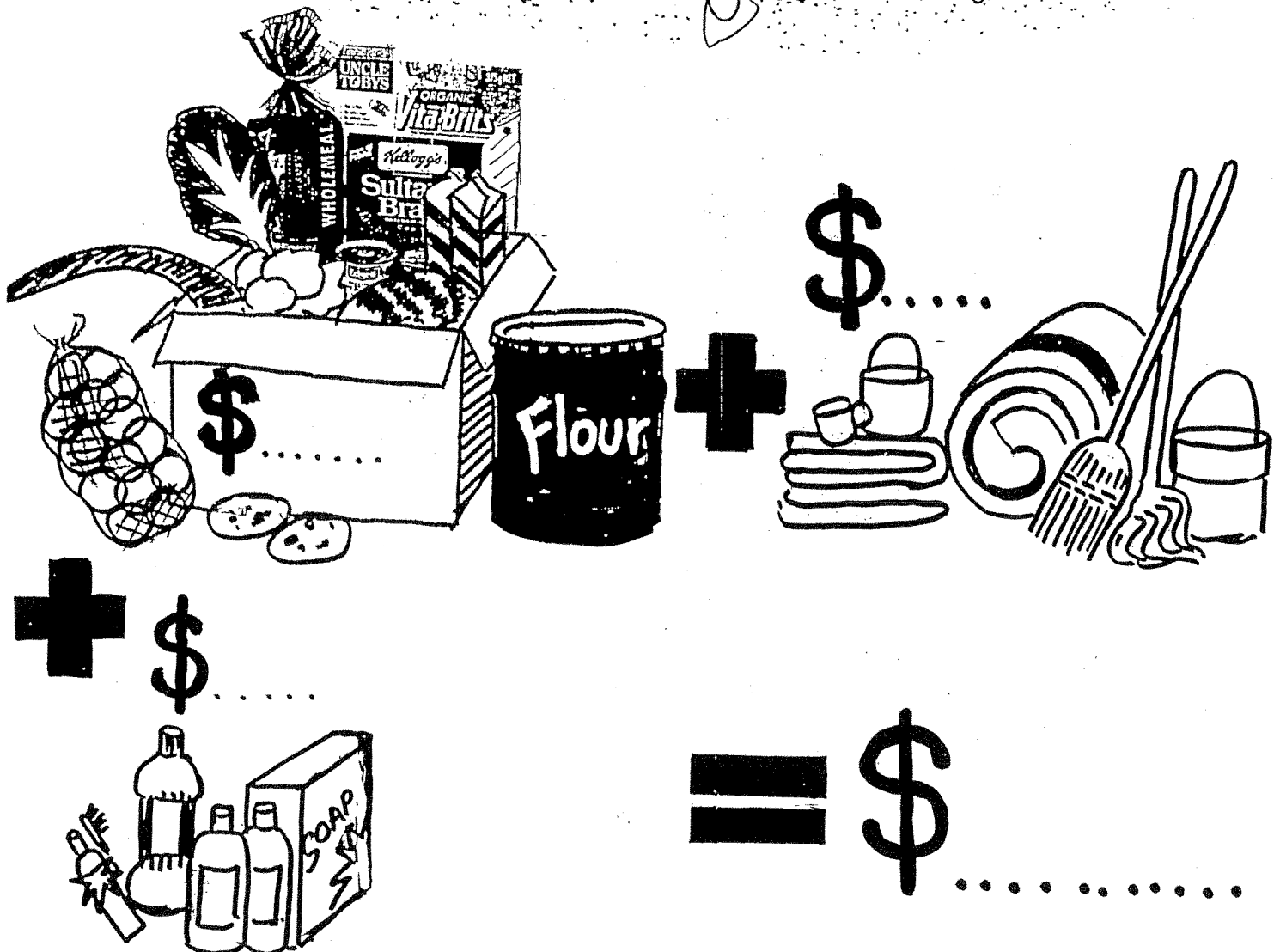
**AVERAGE**

**WORST**

# Store

Cost of living in AP communities

\_\_\_\_\_community



# Incomes and Cost of Living on AP Lands

## ***Introduction***

As discussed in the *Introduction to the Project*, this project led to an examination of incomes and the cost of living on AP Lands because of the direct links between house resource management and the ability of anangu to access basic store items (food, personal health consumables and 'personal health hardware' [UPK:1987]) sufficient to maintain basic health.<sup>1</sup>

The project continually referred to the 9 Healthy Living Practices of UPK, which are identified as the practices most likely to reduce the most common illnesses of anangu. The Healthy Living Practices propose that the most likely ways to improve the health status of anangu are for the people and their houses to have the capacity to<sup>2</sup>:

1. Be safe
2. Wash children and adults
3. Wash clothes and bedding
4. Remove waste
5. Buy, store and prepare healthy food
6. Reduce crowding
7. Separate dogs and children
8. Control dust in the environment
9. Control temperature

Since 1986 there have been significant changes<sup>3</sup> on AP Lands to the extent that Nganampa Health Council and UPK, Anangu Pitjantjatjara (AP) and Pitjantjatjara Council have effectively put the system in place to address the first four issues of safety, washing clothes, washing people and waste removal. AP Services is maintaining these in an ongoing manner. There is evidence of improvement in anangu health status since 1987, but the level of disease prevalence and morbidity continues to be higher than for a similar number of people elsewhere in Australia. Our study following of people's ability to access

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<sup>1</sup> The definition of basic health is perhaps best defined by the items in the health box list. The goal is that people should have sufficient resources to choose to be healthy.

<sup>2</sup> These are our summaries of the 9 Healthy Living Practices. Refer *Uwankara Palyanku Kanyintjaku* Nganampa Health Council / SA Health Commission / Aboriginal Health Organisation of SA December 1987 for a complete explanation of the 9 Healthy Living Practices

healthy living practices set out to map the blocks to the fifth practice above, the ability to buy, store and prepare healthy food.

In the early conceptual stage of the project<sup>4</sup> Stephan Rainow, Public Health Officer for Nganampa Health Council, suggested that given physical improvements since the 1987 UPK report:

- health hardware in houses is reasonably secure, with eg at Pukatja 60% of houses functioning to acceptable standard;
- a regional maintenance program is in place;
- implementation of the waste management program is on schedule,

then anangu may be finding blocks to healthy living practices in other areas, and these areas might include:

1. Personal income - capacity to buy nutritious food and personal health hardware items.  
Are these available and affordable locally?
2. Capacity for storage in the house - once acquired can anangu store food and keep items like brooms and mops ?
3. Other issues with house and yard design, which might be made more friendly to clean and for storage.
4. Appliances - are appliances appropriate and energy efficient? There was for example a discrepancy between 2 anangu houses at Kalka in energy consumption - one hot water service using 3.3kWh/day, another hot water service using 12.6 kWh/day
5. Issues to do with the daily dynamic of the house - effect of overcrowding, anangu house usage patterns, and so on.

Information gathered during the first two weeks' research in community discussions and by observation indicated that while the issues above do have an effect, the major block to anangu making healthy living choices is poverty.<sup>5</sup> Anangu refer to an insitutionalised 'Mai

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<sup>3</sup> Pholeros, Rinow, *Torzillo Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia* Healthabitat 1993 p.ix and ff.

<sup>4</sup> See Kutjara: Household Resource Management on AP Lands First Monthly Report 13 mar 98

<sup>5</sup> In our interim report (March 98) Kutjara also noted secondary contributing factors as:

- Flawed and ineffective management systems
- A range of planning and design issues including siting of houses, lack of landscaping, need for larger bedrooms not larger living areas, need for furniture especially beds, need for bedroom storage, need for flexible visitors/old people's accommodation.

wiya day' (no food day) when the money has run out and children and adults eat little. Across the Lands we found 'Mai wiya day' was three days long.

To establish anangu ability to buy food and necessary health hardware it was necessary to examine incomes and compare these with the cost of living on the Lands. This was done and the results of both the incomes and expenditure studies was depicted on posters and presented to all the communities at both public meetings and special meetings with Community Councils, local Health staff, AP Executive, and Nganampa Health Executive during June and July 1998.

## METHOD

Firstly the current known literature was researched. The principal documents of relevance were the *Economic Study of Anangu Pitjantjatjara Lands* carried out in 1993/94 by the SA Centre for Economic Studies on behalf of ATSIC, and the original *UPK Report* of December 1987 for Nganampa Health Service<sup>6</sup>.

Relevant information and statistical data from these reports has been used. These studies give a good picture of the situation five and eleven years ago, and the findings of our study are generally consistent with the major conclusions of both. However, there are several limitations to the SA Centre for Economic Studies study, which precluded its use as a basis to adjust figures for the intervening period. The most important for our purposes are:

1. The report took a macro-economic approach including the development of a description of individual Full Incomes on the AP Lands; inter alia this included amounts estimated and attributed as income for e.g. education provision and other charges. The focus of this part of the resource management project is anangu ability to access a healthy lifestyle. We are therefore primarily interested in **Anangu disposable income at the store door**, and prices of all the food and health hardware items required to establish and maintain a healthy lifestyle.
2. We consider that the overall estimate of population in the SA Study was underestimated in that the number of children should be higher - to 40% of population, and should be included to establish accurate per capita incomes.
3. Further, the SA study distorted the distribution of incomes and debts with an interview sample based on CDEP participants as 44% of income earners. In fact CDEP

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• For some anangu only, including younger men and women, there is a need for further information about basic living skills and house management including use and care of appliances and nutrition.

<sup>6</sup> op cit

participants represent 85% of earners. This report also has some comment to make on the distribution of CDEP incomes across the Lands.

## ***Anangu incomes***

### **1. CDEP AND COMMUNITY WAGES**

The weekly pay sheets for all the communities were examined to establish the weekly number of CDEP participants, their gross wages, tax paid and the range of payments made to participants. Community employees in addition to CDEP workers, were also recorded. It was noted that there are very few anangu in these higher paid community positions.

Information on the numbers of employees and the pay scales has been sought from the other employing agencies on the Lands including AP, Nganampa Health Council, SA Education Department, Nganampa Health Service and the SA Police Department. The information requested had not been made available at the time of writing (July 98). Again there are proportionally few anangu employees of these organisations, compared with the numbers on CDEP.

The comprehensive figures on the incomes of CDEP participants is sufficient at this time to give a very good indication of income levels and income distribution on the Lands, especially in view of the fact that 85% of anangu earning an income do so through the CDEP program.

To establish family income we took a hypothetical family comprising two adult CDEP workers, one pensioner, two children under 12 years old and one teenager. This hypothetical family is a reasonable assumption, given the known demography, to profile a family that would live together and pool their incomes to buy goods. At the same time we note that there is no such entity as a 'typical' family, that there is high mobility between households in anangu extended families, the number of people living in a house may be nine or more (but they will not necessarily pool incomes).

The figures for the CDEP workers were then combined with known Social Security payments for pensioners and Family Assistance. Thus an income profile was developed for the hypothetical family. Tax paid and compulsory community payments were deducted to give a net disposable income available to the family at the store door.

### **OPTIMUM SITUATION**

It should be noted that this figure represents the optimum income in a situation where all participants are working 'full time' on CDEP and where all social security payments are

claimed and paid. It also **presumes that there is no leakage** of this income to outside agencies, although the 93/94 Study by the SA Centre for Economic Studies shows this to be in the order of 25% to 50% of community income on the Lands. Even assuming that the majority of outside expenditure is by a minority, the more wealthy, non-CDEP employed members, the fact that there is leakage of income off AP Lands and many CDEP workers do not collect their full entitlement means that the true figure arrived at for disposable income at the store door will be **less** than that assumed in the arguments to follow. That is to say, Anangu are even worse off than we demonstrate in this report.

#### CDEP INCOME

Presuming all CDEP participants on AP Lands work their allotted hours each will receive a gross payment of \$183. Currently tax on this amount is at \$17 and community deductions range from \$10 to \$35 a week.

Therefore projected net CDEP pay is currently between \$156 and \$131 depending on one's community. As noted in the above variations a great number of people receive less than the optimum amount.

#### EFFECTS OF CDEP ADMINISTRATION ON ANANGU INCOMES

While all the communities on AP Lands operate CDEP under the same rules there are variations between communities in how the CDEP is administered. This has an impact on not only the average wage available in each location, but also on the distribution of income between the community participants.

Some general comment on some of these factors affecting anangu incomes is required.

1. **Numbers of participants:** All communities have ATSIC submitted participant schedules, but there are large variations between the official numbers and the weekly number of paid recipients as well as weekly variations within each community. In one community weekly participation numbers ranged between 58 -116 recipients with a weekly average number of 94 paid. This system contributes to the creation of a wage surplus by all communities.
2. **Under payments:** A policy of 'no work no pay' is unevenly applied across the communities. Most have developed a system which records the no-shows as receiving a minimum amount. The minimum payment varies. In one community the minimum payment is \$96 with \$17 community deductions (\$79 net pay) and in another it is \$35 with \$35 community deductions (\$0 net pay). In the latter community those receiving zero net pay number between 25% and nearly 50% of participants with the average

number around 40 out of 94. The impact on ability to access a healthy lifestyle for this proportion of the population receiving NO income should be a major concern to the community and health sectors.

3. **Overpayments - the surplus:** The surpluses obtained in each community by the application of CDEP rules are used to reward good workers and other members of the community. The upper income levels on CDEP is supposed to be \$360 and this is paid to some community participants. However the number of local anangu in each community shown receive this level of payment is very small. Numbers vary between and within each community over time and there are very few on a permanent higher wage. The variation is between 3% and 24% of the recipients, with a general average around 10%. In one community two non-local families with nine members were paid \$3,888 of the gross CDEP and community wages totalling \$18,863, and 101 locals shared \$12,975: ie 8% of workers received 23% of the gross wages and 91% shared the remaining 77% -an average gross wage of \$432 compared with \$143.
4. **Changes to CDEP:** There are administrative changes proposed in the budget statement by the Minister for Aboriginal and Torres Strait Islander Affairs<sup>7</sup>.
  1. Participant numbers are set to consist of only those actually participating.  
Those who do not participate will be required to register as unemployed and receive Social Security payments.
  2. CDEP participants will not be required to pay tax. For a full participant this is a saving of \$17 on the gross pay of \$183.

#### CDEP CONCLUSIONS

1. There have been wide discrepancies on the application of CDEP rules.
2. This has resulted in a redistribution of incomes causing significant numbers of people to receive little or no pay per week.
3. The planned participant changes should ensure a fixed incomes for participants BUT will eliminate a large proportion of the surpluses and the ability to 'overpay' participants will be reduced.
4. The taxation relief will give \$17 extra in hand for full participants. However PITCAS has advised that there are some administrative problems in applying this procedure and it is not certain that the proposal will be applied on AP Lands.
5. Community deductions for power, rent, water, sorry business and other community levies imposed periodically reduce disposable incomes by \$10 - \$35 per week and more.

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<sup>7</sup> Addressing Priorities in Indigenous Affairs: Statement by the Hon John Herron Minister for Aboriginal and Torres Strait Islander Affairs 12 May 1998



6. Notwithstanding all the variations within CDEP and the changes proposed it is possible to calculate an accurate profile of CDEP incomes and to develop a family income profile.

## **2.PENSION INCOME**

The level of pensioners' payments vary depending on the marital status of the recipients and whether other assistance is paid. For this exercise the figure \$163/week (from \$326/fortnight) has been used. (Couples \$295.80/fortnight each, single \$354/fortnight)

## **3.FAMILY ASSISTANCE INCOMES**

FAS payments for children under \$12 years old are paid at \$96/fortnight and over 12 years old at \$126/fortnight, ie \$48 and \$63 a week respectively

## **4.THE FAMILY INCOME**

A hypothetical anangu family was used to aggregate incomes. Our model of a family has 2 adult CDEP workers, one pensioner and 3 children (2 under twelve and one over twelve). The fact that the percentage of children on AP Lands is actually 40% not 50% as in our model, and that pensioners make up 12% of the population not 16% as our model implies, means that our model in fact distorts the income **upwards**. However we are confident that for the purposes of this income analysis, this is a reasonable model of income contributions.

Using our model of a family the optimum family disposable income is:

	BEST SITUATION	WORST SITUATION
CDEP 1.	\$156	\$131
CDEP 2.	\$156	\$131
PENSIONER	\$163	\$163
FAS (2 + 1)	\$159	\$159
TOTAL	\$624	\$584

For community meetings the figure of \$600 was used as the available family income at the store door. This equates to an average per capita disposable income of approximately \$100 per person per week across the Lands, or \$5,200 per annum.

	Item	Mean Lands cost	District centre cost	unit of multiplication (1 = family, n=number of individuals)	replacement per year or per week	Mean Lands cost per week	District centre cost per week	AP Lands cost per week as percentage of District Centr
1								
2	rake	9.875	2.95	1	4	0.76	0.23	334.7
3	house broom	13.75	11.95	1	4	1.06	0.92	115.0
4	straw broom	13.375	5.75	1	4	1.03	0.44	232.6
5	brush & dustpan	5.33	1.95	1	0	0.00	0.00	
6	toilet brush	4.5	2.95	1	4	0.35	0.23	152.5
7	mop & handle	12.75	7.95	1	4	0.98	0.61	160.3
8	mop head	5.15	1.95	1	0	0.00	0.00	
9	bucket mop	25	31.95	1	4	1.92	2.46	78.2
10	bucket plastic	4.25	1.15	1	0	0.00	0.00	
11	billy,medium	10.92	5.75	2	4	1.68	0.88	189.8
12	saucepan	8.5	19.95	1	4	0.65	1.53	42.6
13	frying pan, non electric	18.6	15.95	1	4	1.43	1.23	116.6
14	electric frying pan	100.5	82.95	1	1	1.93	1.60	121.1
15	crockery set, 2 plates	3.975	7.1	5	4	1.53	2.73	55.9
16	panikin, lge.	6.75	3.95	5	4	2.60	1.52	170.8
17	cutlery, 3 items	3.3	3	5	4	1.27	1.15	110.0
18	tucker box,steel	130	130	1	1	2.50	2.50	100.0
19	esky, lge.	94.8	84	1	1	1.82	1.62	112.8
20	water jerry can	28.8	19.95	1	4	2.22	1.53	144.3
21	washing basin	4.67	4.95	1	4	0.36	0.38	94.2
22	hose plus fittings	26.25	10.45	1	2	1.01	0.40	251.2
23	axe, small	15	15	1	1	0.29	0.29	100.0
24	shovel, short handle	11.5	19.45	1	1	0.22	0.37	59.1
25	towel, sml.	13.62	10.95	6	4	6.29	5.05	124.4
26	blanket, sing.	36.2	24.95	4	2	5.57	3.84	145.0
27	blanket, dbl.	52.50	54	1	2	2.02	2.08	97.2
28	swag, sing.	180	180	1	1	3.46	3.46	100.0
29	sheets							
30	swag, dbl.	260	260	1	1	5.00	5.00	100.0
31	matress, sml	71.67	71.67	1	1	1.38	1.38	100.0
32	pillow	10.5	6.95	6	1	1.21	0.80	151.0
33	kids clothes, top + bottom	19.8	19.9	2	12	9.14	9.18	99.5
34	kids shoes	9.2	29.95	2	2	0.71	2.30	30.7
35	men's shirts	16.25	7.95	2	4	2.50	1.22	204.4
36	men's trousers	36.33	12	2	4	5.59	1.85	302.7
37	men's shoes	33.33	19.95	2	2	2.56	1.53	167.0
38	women's blouse	16.46	12.95	2	4	2.53	1.99	127.0
39	women's skirt	22.33	29.95	2	4	3.44	4.61	74.5
40	women's shoes	12	12.95	2	2	0.92	1.00	92.6
41	plugs, bath/sink	2	2.25	1	4	0.15	0.17	88.8
42	light globes	1.22	0.5	1	12	0.28	0.12	243.3
43	hair brush	2.93	2.93	3	4	0.68	0.68	100.1
44	tooth brush	3.04	2.99	3	4	0.70	0.69	101.6
45	torch & batteries	19.00	14.95	1	4	1.46	1.15	127.0
46								
47	TotalWeek Costs (TWC)					80.44	70.50	114.0
48	TWC: items x,y etc							
49					per week			
50	bullets, .22 x 50	6.05	6.05	1	1	6.05	6.05	100.0
51	disposable nappies, 12 lge.	7.18	4.43	1	2	14.37	8.86	162.1
52	toilet paper (2)	2.03	1.46	1	2	4.07	2.92	139.2
53	toilet cleaner,	4.13	1.89	1	1	4.13	1.89	218.6
54	disinfectant, pine-o-clean	3.38	3.77	1	1	3.38	3.77	89.7
55	powder cleanser (Ajax)	2.53	1.86	1	1	2.53	1.86	136.2
56	sanitary napkins (libra 12)	3.15	4.09			0	0	
57	tissues - box 200	2.00	1.59	1	1	2	1.59	125.7
58	shampoo, generic	2.00	3.82	1	1	2	3.82	52.3

5 8	shampoo, generic	2.00	3.82	1	1	2	3.82	52.36
5 9	shampoo, exp.(375)	4.85	7.25	1	1	4.85	7.25	66.90
6 0	soap, 2 pack	2.33	1.85	1	1	2.33	1.85	126.13
6 1	liquid soap	3.33	1.99			0	0	
6 2	dishwashing detergent	3.62	2.97	1	1	3.62	2.97	121.77
6 3	dishwashing scourer	1.72	1.24	1	1	1.72	1.24	138.71
6 4	dishwashing (2 in 1)	3.20	3.2	1	1	3.2	3.2	100.00
6 5	clothes det. generic	4.84	1.95	1	1	4.84	1.95	248.21
6 6	clothes det. expen.	6.28	5.49	1	1	6.28	5.49	114.45
6 7	garbage bags	3.10	3.28	1	1	3.1	3.28	94.51
6 8	tooth paste, colgate	3.65	3.8	1	0.5	1.82	1.9	96.05
6 9	alfoil	2.00	2.16	1	1	2	2.16	92.59
7 0	panadol	2.50	2.09	1	1	2.5	2.09	119.62
7 1	flyspray	6.30	3.74	1	1	6.3	3.74	168.45
7 2								
7 3	Total Weekly Cost (TWC)	80.19				81.10	67.88	119.48
7 4	TWC items x,y etc							
7 5					per week			
7 6	bread, white	2.48	2.1	1	7	17.36	14.7	118.10
7 7	bread, wholemeal	2.10	2.22	1	7	14.70	15.54	94.59
7 8	rolled oates, 1kg	4.60	1.45	1	1	4.60	1.45	317.24
7 9	weetbix, 750g	4.42	3.1	1	1	4.42	3.1	142.58
8 0	bread mix, 2kg	5.80	4.25	1	0	0.00	0	
8 1	rice, white long	3.02	1.69	1	1	3.02	1.69	178.50
8 2	split peas	1.20	0.69			0.00	0	
8 3	baby food, tin	1.00	0.66	1	14	14.00	9.24	151.52
8 4	flour, 10 kg tin	16.26	10.34		0	0.00	0	
8 5	flour, 2 kg pkt	2.97	1.6	1	2	5.93	3.2	185.42
8 6	tea leaf	2.73	2.28	1	1	2.73	2.28	119.88
8 7	sugar, 2kg	2.00	2.12	1	1	2.00	2.12	94.34
8 8	biscuits, dry, salada	2.70	1.75	1	1	2.70	1.75	154.29
8 9	biscuits, sweet (F/A)	5.45	5.54	1	1	5.45	5.54	98.38
9 0	peanuts	2.80	1.99	1	1	2.80	1.99	140.70
9 1	nuts & raisins, mxd	3.70	2.7	1	1	3.70	2.7	137.04
9 2	pasta, dry 500g	2.02	1.62	1	1	2.02	1.62	125.00
9 3	dried fruit, apricots 200g	2.92	2.69	1	1	2.92	2.69	108.74
9 4	soup mix	3.07	0.69	1	2	6.13	1.38	444.44
9 5	noodles, 2 min.	1.00	0.6	6	1	6.00	3.6	166.67
9 6	baked beans, 420g	1.72	1.08	1	4	6.88	4.32	159.26
9 7	spagetti, 420g	1.98	1.01	1	4	7.92	4.04	196.04
9 8	margarine, 500g	3.08	1.98	1	1	3.08	1.98	155.72
9 9	cheese, ol-bitey,500g	6.38	5.25	1	1	6.38	5.25	121.43
10 0	yoghurt, 250g	2.20	1.58	6	1	13.20	9.48	139.24
10 1	milk, fresh 2lt.	3.43	2.47	1	1	3.43	2.47	139.00
10 2	milk, UHT 1lt.	1.68	1.12	1	2	3.35	2.24	149.55
10 3	milk, powder, s/s 1kg	9.55	4.53	1	1	9.55	4.53	210.82
10 4	tomato sauce, 375g	2.70	1.99	1	1	2.70	1.99	135.68
10 5	eggs, 55's 1 doz.	3.50	2.98	1	1	3.50	2.98	117.45
10 6	peas, tinned 440g	1.50	0.97	1	5	7.50	4.85	154.64
10 7	veg. mxd, 440g	1.45	1.37	1	5	7.25	6.85	105.84
10 8	fruit, tinned 420g	2.55	1.83	1	5	12.75	9.15	139.34
10 9	fruit tinned diet					0.00	0	
11 0	oranges, p. pce(145g)	0.47	0.57	5	5	11.67	14.25	81.87
11 1	bananas, p.pce.(124g)	0.48	0.31	6	5	14.40	9.3	154.84
11 2	apples, p.pce.(150g)	0.46	0.55	5	5	11.46	13.75	83.33
11 3	orange juice, 2lt	4.57	3.75	1	2	9.13	7.5	121.78
11 4	apple juice, 375ml	1.40	1.65	5	1	7.00	8.25	84.85
11 5	fruit-box, popper	1.00	0.47	3	3	9.00	4.23	212.77
11 6	tomatoes, p.pce.(129g)	0.67	0.96	1	5	3.33	4.8	69.44
11 7	cabbage, 1/2 @ 1.5kg	1.88	1.95	1	1	1.88	1.95	96.58

118	cauli, 1/2 hd.	2.33	1	1	1	2.33	1	233
119	carrots, per kg	2.18	2.49	1	1	2.18	2.49	87
120	broccoli, per kg	1.65	5.49	1	1	1.65	5.49	30
121	pumpkin, 1/4 Qld.B	1.50	0.99	1	1	1.50	0.99	151
122	pumpkin, but/nut whole	2.17	1.69	1	1	2.17	1.69	128
123	potatoes, 2.5kg bag	4.14	1.99	1	2	8.28	3.98	207
124	meat - steak per kg	10.37	10.49	1	1	10.37	10.49	98
125	meat - sheep per kg	6.58	7.09	1	1	6.58	7.09	92
126	meat - sausage/mince	4.10	4.99	1	1	4.10	4.99	82
127	meat - chicken per kg	5.89	4.69	1	1	5.89	4.69	125
128	meat - chicken, whole	7.40	7.98	1	1	7.40	7.98	92
129	roo tails							
130	corned beef, hamper 340g	4.17	2.91	1	4	16.70	11.64	140
131	fray bentos pie	5.34	4.07	1	4	21.36	16.28	131
132	fish - tuna	4.37	2.99	1	2	8.73	5.98	146
133	irish stew & similar	3.05	2.22	1	4	12.20	8.88	137
134								
135	Total Weekly Costs					367.29	292.41	125
136								
137	Adjusted to minimum nutritional requirements and allowing wastage (see text)					337.00	269.00	125
138								
139	Total Family Weekly Costs					498.54	407.38	122

## ***The cost of healthy living for anangu***

### **INTRODUCTION**

Over the period of the consultancy a weekly store box of goods, identified as necessary for healthy living, was developed for the hypothetical family of six, and these items were priced from the community stores on the Lands.

This weekly store box contains three groupings of items considered basic and necessary to establish and maintain a healthy lifestyle for the family:

1. The first group, referred to as personal health hardware items, includes the larger and thus periodic expenditures such as brooms, mops buckets, blankets, clothing, cooking utensils and so on.
2. The second group, referred to as health consumables, consists of necessary cleaning agents such as soaps, shampoo, disinfectant, washing detergents, toilet cleaners, home medications etc.
3. The last group comprises consumable food and is called the food basket.

The cost to the family to purchase the food basket, the health hardware items and health consumables was established by surveying the prices of the items in the community stores. All community stores were surveyed and an average price for each item was calculated and then collated to give a regional average cost of healthy living on AP Lands.

### **THE HEALTHY LIVING STORES BOX**

The three types of healthy living items were categorised, not only by reason for purchase but also to correlate to frequency of purchase. The items in each category were selected on the basis of information from previous research by Nganampa Health Service, NPY Womens Council, other research papers and by consultation with anangu consumers.

An average weekly cost for each item was multiplied by its frequency of purchase. Where an item was available in a few or only one store the price was still averaged, and where not available on the Lands the local centre, Alice Springs, price was applied. For periodic purchases for the larger items a weekly cost was calculated from the annual cost of replacing the item on a regular basis to maintain its effective use as health hardware. For the non-food consumable items an estimate of weekly use by the family was also calculated.

The amount of goods in the health hardware and consumables categories is an estimate based on the best current information available and therefore could be adjusted as new information is collected.

No luxury items or appliances, except for the inclusion of an electric frying pan, were budgeted into the list. The amounts allowed for some items, we believe, are on the lower end of the continuum required to maintain a healthy family. For example we allowed \$10 per week for children's clothing for the two children under twelve, and \$27.39 to cover all clothing needs for the whole family of six. This assumes almost all clothing purchases will be second hand. Motor vehicle fuels and oils, cigarettes, convenience foods, lollies and cool drinks etc were not included in the study.

The food basket was analysed by a contracted nutritionist in Alice Springs and was developed to represent a nutritionally balanced diet with sufficient quantity to supply the family of six with their basic needs from the stock available in the community stores. This work included examination by weight of the items in the food basket on the basis of the micronutrient contribution as a percentage of basic needs, proportion of energy contribution by macronutrients, dietary contribution by type of fat as well as total kilojoule intake. The food basket has an excellent balance between protein, fat and carbohydrates and represents an excess of total dietary needs. *(The full nutrition information is presented in following)*

The excess this diet delivers in total kilojoules is greater than the minimum daily intake required. However the nutritionist advises that this is a fair diet to recommend as it allows for wastage and spoilage, which in the living conditions experienced by AP residents is a major consideration. Problems of lack of refrigeration, lack of cupboard storage space, food preparation, marauding dogs, large communal living conditions and high mobility all contribute to loss of food between the store cash register and anangu mouths. Wastage is allowed at 25% of purchased food. Thus we consider the estimate of required purchases in the food basket to be realistic and the health items basket to be underestimates.

The same shopping basket of goods was priced in the local centre, Alice Springs. The cost of the total basket of health items and food was 23% more expensive on the AP Lands. It will be useful to carry out a comparison with capital city prices as well.

## **COST OF HEALTHY STORES BOX**

In summary, the cost of purchasing the healthy living basket of food and health items is:

Personal Health Hardware Items	\$80.44
Personal Health Consumable Items	\$81.10
Healthy Food Basket	<u>\$334.00</u>
	\$495.54

For community meetings the figures of \$80, \$81 and \$339 were used to give a cost of living for this health basket at \$500 per week for the family of six.

Given the methodology used we consider \$500 per week to be a fair calculation of the cost of living to sustain a healthy lifestyle for a family of six, and, due to the loss in economies of scale, the cost to be well in excess of \$100 per week for single people.

## **ABILITY TO PURCHASE HEALTH BASKET**

At a weekly combined income of \$600 and weekly healthy living costs of \$500 the family groups on AP Lands face an impossible health situation. Given these figures represent a 'generous' (ie optimised income and averaged prices) analysis, that they do not allow for any leakage or off-lands spending, and given that we know a great number of residents (CDEP records) do not receive enough to get the family near the \$600 income level, the vast majority would appear to have income levels less than the cost of living.

The financial impact on anangu actually receiving the optimum or over-payment incomes who support family members receiving very little was not assessed. We know that the people who receive little or no money are alive due to extended family support and this must severely impact on the supporting families' ability to keep combined income above the minimum cost of healthy living. It is statistically possible that no family group on AP Lands could financially access the required health items and balanced diet.

This project did not have the scope to relate income levels to health status indicators like low birthweight, prematurity, infant mortality, likelihood of injury, malnutrition or incidence of infectious diseases<sup>8</sup>, but given our cost of living figures are based on minimum health requirements the implications for the long term levels of health across the

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<sup>8</sup> Helen Rodriguez-Trias *What Young Children in Poverty will Require from Health Care Reform* Child Poverty News & Issues Summer 1994, Vol.4, No.2.

Lands are grim. The fact that these levels are significantly higher than in the rest of the Australian population is evidence in itself.<sup>9</sup>

The reality is that a majority of anangu are not only living far below the poverty line, they are living below the health line. Until this fundamental financial block to anangu accessing healthy lives in their own country is removed the Pitjantjatjara are doomed to continuing ill health, high and early death rates and the long term consequences of an economically and financially impoverished nation.

### ***Implications***

Poverty undermines every other health initiative. Most Anangu cannot afford to eat or to feed their children every day. The effect of malnourishment and poor nutrition from childhood on seems evident in the escalating disease and morbidity rates. We observed that surviving on damper and tea, with children hungry and complaining, seems to lend itself to mothers promising coke and chips as rewards to pacify them, fostering poor eating habits from infancy.

Anangu cannot afford whitegoods, beds, tables or any of the other items that make houses liveable. Not having a refrigerator to store food contributes to the whole cycle of daily dependency on the store for food storage, buying pre-prepared foods which are commonly less nutritious, and more expensive than raw ingredients.

Poverty creates its own cycles within cycles. Where food is unaffordable people do not spend money on soap, shampoo or washing powder, or toilet paper, so they lose part of their capacity to wash people and wash clothes and bedding.

People prioritise food before cooking utensils including saucepans and baking dishes. This must affect hygiene, and there is a direct link to the high failure rate of stoves. Without a barbecue plate it is too easy to take out the baking rack from the oven for use on the open fire, or to cut out a grid of wire fence to put on the coals. Without a baking rack (the neighbour might borrow it, kids cart it off to play) the oven is useless. However there may be nowhere else to try to cook a roast of meat, when a roast becomes available, but the floor of the oven, where it may not cook very well and will destroy the element.

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<sup>9</sup> Lindsey Harrison *Food Nutrition and Growth in Aboriginal Communities* in ed. Reid and Tromf *The Health of Aboriginal Australia* Harcourt Brace Jovanovich 1991



The most insidious, but most difficult to measure, effect of poverty is the generation of a culture of poverty. There is almost no way out of the cycle of minimum subsistence. A community which has been poor for a long time tends to accommodate poverty, that is it will not look for ways out, and will cease to be enterprising.<sup>10</sup> It may be that aiming for status and respect leads individuals to culturally unacceptable or criminal activities as the only paths that are open to them.<sup>11</sup> Certainly on AP Lands for most people the only ways to access a large amount of money is by windfalls, including gambling and accident compensations.

## ENSURING ACCESS TO HEALTH

Part of the solution to narrowing the gap between disposable incomes and affordable prices lies outside the AP Lands. That indigenous Australians suffer health problems due to poor access to nutritious foods has been documented by government studies in the Northern Territory and North Queensland. Further research for the Australian Medical Association and the Australian Pharmaceutical Manufacturers Association in 1997 identified issues including<sup>12</sup>:

- The narrow range of foods available at stores and the increasing appeal of convenience items.
- The poor attitude of some store managers to good nutrition.
- A loss of understanding of the links between diet, nutrition, and health.
- Denial of the opportunity to hunt or gather foods in some areas.
- A shortage of trained people 'on the ground' to promote healthier food options.
- Little means of controlling personal finances, with most income being spent almost immediately upon receipt.

Similar issues were identified in a 1996 study of community stores in Western Australia.<sup>13</sup>

It is recognised that poor Australians pay approximately 40% of their income on cost of living. For anangu the cost of living consumes 85% of their income, and that is for the more 'affluent' anangu whose combined family income is about \$600 per week.

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<sup>10</sup> Galbraith J.K *Nature of Mass Poverty* Harvarad University Press 1979.

<sup>11</sup> *In search of respect: Selling crack in the barrios*

<sup>12</sup> Quoted in O'Neill *Paying the Price for Healthy* Tucker in *Consuming Interest* Autumn 1998 pp26ff

<sup>13</sup> George, Kate *Community Stores and the Promotion of Health - An Assessment of Community Stores and their functions in the promotion of Health in Aboriginal Communities* Report to the Health Department of Western Australia 1996

To reduce prices on the identified health items to a level of cost that would entail the expenditure of 50% of disposable income requires a 40% reduction in the prices of the items specified. Items now priced at \$10 would be \$6; \$20 would become \$12, and so on. A 40% reduction in prices of these items would mean that the anangu family of six would spend 50% of their combined incomes on the health items and health food basket.

The store losses to implement this pricing structure could not be borne by the stores. Store managers insist that current pricing structures are optimum at the time of survey. While it is conceded that there may be efficiencies to be gained in improving store operations, these gains could never match the required sums and the health of the people should no longer be secondary to the operation of the store.

**The issue is one of health.** The responsibility to ensure that citizens have access to the basic health needs lies with the government. The Federal Government's 1992 Food and Nutrition Policy identified good nutrition as 'a fundamental part of achieving social justice.'

A reasonable estimate of the cost of implementing a store price fixing policy on the identified items across the lands from Indulkana to Watarru is a relatively simple matter. The reduction of total basket costs from \$500 to \$300 for each group of six families (assuming 2400 AP residents) involves a weekly subsidy (or payment) of  $400 \times \$200 = \$80\,000$  per week or approximately \$4 million per annum.

This figure assumes all anangu use the recommended shopping basket immediately and in the calculated proportions. People can be encouraged to access the identified items but not forced. However in conjunction with education programs and information from AP, Nganampa Health Service, Women's Council and community councils it could become a key strategy in improving anangu health status. The real annual cost of store subsidies would therefore be considerably less than the \$4 million estimated above.

Given the state of health on AP Lands and the kind of lifestyle diseases now becoming endemic, and the public cost of anangu ill-health, subsidising identified health items in stores on AP communities seems to be a sensible economic approach. It would seem a small price to pay for ensuring that all anangu on the AP Lands have access to an affordable and healthy lifestyle. This report is not the first to realise that the scale and implications of poor Aboriginal nutrition places it in the sphere of Federal and State governments. With the Federal Government already acknowledging that its strategy must extend beyond health

programs<sup>14</sup> it would seem an opportune time for AP and Nganampa Health Council to start negotiating with government on behalf of anangu. At the same time there is an immediate need to start investigating other strategies.

### ***Community response to Study.***

The information from the income and cost of healthy living research was presented to community meetings in all communities as part of the resource management project. Two posters representing the information on incomes and expenditure were developed and included in the discussions (*Refer to samples following*)

The response to the incomes and cost of living presentation at the meetings was overwhelming and this part of the project generated the most interest. Anangu know that they are living in a situation which precludes them from living and maintaining a healthy lifestyle. It was affirming for the anangu audience that this could be 'proved' in a whitefella way. Every meeting without exception stated that this gap between incomes and high store prices was the major reason for ill-health and that something had to be done to rectify the situation. Every community agreed that this problem is a health issue and anecdotal stories of hardship and the effects of poverty are legion.

After explanations and discussion about strategies to change the situation, every meeting decided unanimously to direct the current AP Resource Management project to continue down the path of ultimately ensuring a price structure across AP Lands for the identified health items. In most communities the meeting also requested that the Store managers be educated about their health role as community employees and that AP, as most appropriate body, develop a Stores Policy for application across the Lands.

### ***Conclusions***

1. In general, and for a majority, anangu on the AP Lands are unable to access a healthy life-style due to low disposable incomes and high cost of healthy living.
2. Anangu are aware their health status depends on access to healthy food and other health items and that their ill health is fundamentally due to their lack of purchasing power.
3. Price reductions in community stores of approximately 40% across the board on all identified health items and food is required to ensure anangu have access to a healthy lifestyle at a cost of approximately half of their disposable income.

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<sup>14</sup> O'Neill *Paying the Price for Healthy* Tucker in Consuming Interest Autumn 1998

4. The magnitude of the funding assistance required to achieve an accessible cost of healthy living necessitates federal government support via the health sector.

#### **RECOMMENDATIONS**

1. AP/Nganampa Health Service coordinate a Stores Business meeting to commence the development of a Stores Policy for AP Lands.
2. Regardless of 1 above, AP along with Nganampa Health Service and all Community Councils adopt a policy of implementing price controls on health items and healthy foods across AP Lands.
3. AP and Nganampa Health Service, on adoption of the price fixing policy, begin negotiations with government health sectors to fund the required shortfall in store operations the policy implementation will produce.
4. AP monitor the operation of CDEP in relation to tax savings being proposed, and the effect on income distribution of the administration of CDEP rules.
5. AP resist, and encourage community councils and members to resist, the implementation of User Pays electricity charges on the Lands on the basis of anangu inability to pay due to the cost of healthy living statistics and the adverse health effects caused by additional local community charges.

## **Monitoring the weekly Healthy Stores Box**

The weekly store box contains goods identified as necessary for healthy living for the hypothetical family of six (adult male and female, a pensioner, adolescent boy, two children under the age of twelve). *(See previous section for full description of the development of the basket, and following for a full list of items by category. This information was developed in spreadsheet format for community use as a resource management tool.)*

### **COMPUTER PROGRAM**

The computer program developed by Roy Price, Nutritionist and Dietician, and John Tregenza, Kutjara consultants, has the capacity to calculate a range of information. The program consists of the full list of healthy living items divided into the three categories of personal health hardware, personal consumables and a food basket. The program enables clients to calculate the cost of healthy living by item and category, as well as linking the food basket to nutritional analysis. For example, Aboriginal Health Workers or other employees in each community could monitor store prices by checking at regular intervals, a regional average could be calculated and then changes in individual store prices checked against the regional average. Modifying the store basket would enable health professionals and others to assess changes in diet with reference to the impact on prices and nutrition.

This program is currently in Stage 1 of development and we are seeking relevant input with a view to developing this further in the next stage of the project.

### **RECOMMENDATIONS**

1. During the second stage of the project the computer program should be trialled with regard to its accessibility and usefulness, in consultation with anangu clients, AP Services, Nganampa Health staff and staff of Ngaanyatjarra Pitjantjatjara Yankunytjatjara Women's Council.
2. If approved the computer program should be refined and presented in a format suitable for community use.

## References

The different parts of this project have drawn on a range of resources and reference material. This list contains works referred to in this report and some of the most relevant background material.

*Addressing Priorities in Indigenous Affairs: Statement by the Hon John Herron Minister for Aboriginal and Torres Strait Islander Affairs* Canberra 12 May 1998

Bryce, Suzy *Health Warkaku Nyiri Maitjara Nyanga Central Australia - A Health Worker's Nutrition Handbook for Central Australia* - IAD 1983

Commonwealth of Australia *Australia's Health 1996 - Fifth Biennial Report of Australian Institute of Health and Welfare* AGPS Canberra 1996

Commonwealth Department of Health and Family Services *Sharing Good Tucker Stories* Canberra 1996

George, Kate *Community Stores and the Promotion of Health - An Assessment of Community Stores and their functions in the promotion of Health in Aboriginal Communities* Report to the Health Department of Western Australia 1996

Health Promotion Services Branch and Pundulmurra College *Environmental Health for Aboriginal Communities - A Training Manual for Environmental Health Workers*. Health Department of Western Australia

Khalife, Dharmappa and Sivakumar *Safe Disposal of Wastewater in Remote Aboriginal Communities* University of Wollongong April 1997

ed Lloyd *Washing Machine Use in Remote Aboriginal Communities*  
NTRC Report # cat 97/8 Centre for Appropriate Technology 1997

Nganampa Health Council Annual Reports 1994 - 1997

O'Neill, Matt *Paying the Price for Healthy Tucker in Consuming Interest* Autumn 1998

PAWA *Plugged In and Turned On* (curriculum support material on managing power and water)

Paul Pholeros for Nganampa Health Council *Energy and Water Use Required for Health In Anangu Housing on the Anangu Pitjantjatjara Lands NW of South Australia* July 1997

Pholeros, Rainow and Torzillo *Housing for Health - Towards a Healthy Living Environment for Aboriginal Australia* Healthabitat 1993

*Report of Uwankara Palyanku Kanyintjaku - An Environmental and Public Health Review within the Anangu Pitjantjatjara Lands* Nganampa Health Council, South Australian Health Commission, Aboriginal Health Organisation of SA 1987

Tietz and Peter, ed Lloyd - *Indoor Stoves for Remote Aboriginal Communities*  
NTRC Report # cat 97/8 Centre for Appropriate Technology 1997

Tregenza, J&E, with Yami Lester *Report on Bilingual Testing of Employees of PYN Council for the PYN Council Industrial Award. 1992*

## **VIDEOS**

UPK *Shower Block Song*

UPK *Report of Uwankara Palyanku Kanyintjaku*

Power and Water Authority of the NT *Paying for Electricity*

Power and Water Authority of the NT *Saving Power*

Health Promotion Services Branch, Health Department of WA *Gas and Electricity ;  
Keeping Safe in Communities*

Health Promotion Services Branch, Health Department of WA *Water Borne Sewerage*

We were reminded that in winter houses are much colder than the bush, and older people who are unable to get firewood will move out of their houses in winter time.

#### **RECOMMENDATIONS ABOUT HEATING**

1. **Regular supply:** CDEP programs should prioritise supplying firewood so that all households are supplied with wood according to their seasonal needs.
2. **Renewable supplies:** Communities need to recognise that wood is a primary source of fuel, and plan wood harvesting including planting wood supplies.
3. **Research and development:** Further heating options need to be followed up, and further discussions entered into with anangu.
4. The kinds of heaters installed in houses needs some examination. People are complaining that they cannot fit wood into these heaters, given that mulga is a very hard wood which is broken by hand, not chopped.

#### ***The effect of poverty on household appliances***

As discussed in the section on *Incomes and cost of living*, poverty undermines every other health initiative. Most Anangu cannot afford to eat or to feed their children every day.

Where food is unaffordable people do not spend money on cleaning agents.

People prioritise food before cooking utensils including saucepans and baking dishes. There is a direct link to the high failure rate of stoves. Without a barbecue plate it is too easy to take out the baking rack from the oven for use on the open fire, or to cut out a grid of wire fence to put on the coals. Vandalism, or necessity? Without a baking rack (the neighbour might borrow it, kids cart it off to play) the oven is useless. However there may be nowhere else to try to cook a roast of meat, when a roast becomes available, but the floor of the oven, where it may not cook very well and will destroy the element.

Anangu cannot afford whitegoods, beds, tables or any of the other items that make houses liveable. This lends itself to makeshift alternatives which may mean that other parts of a house are 'destroyed' - eg cupboards are tipped over to serve as double beds.

In summary, there is a need for further education about the use of household appliances, and further trialling of various options, but household management will always be limited by income.

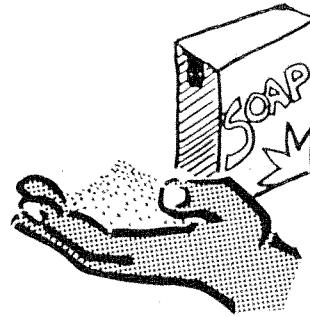


## **RECOMMENDATION**

We recommend that affordable basic furniture and storage items be made available to householders.



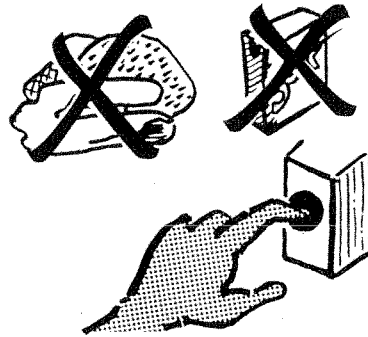
Nganmanytju uwankara  
pata-patala! Blanketa  
clothes kulu-kulu!



Marangka kuju tjutila!  
Tjuta wiya! Kutju!



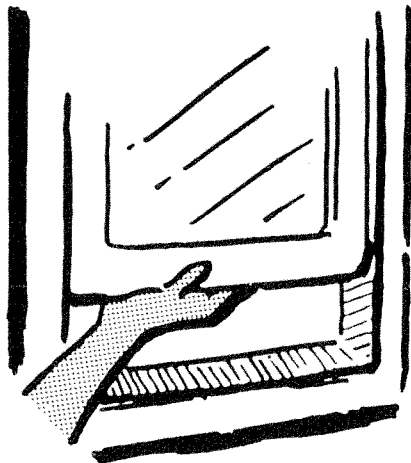
Blanketa tjuta wiya!  
Blanketa kutju kutju  
tjura!



Washing-machinangka  
kapi kutju clean-ankuntjaku  
wiki kutjupa kutjupangka.

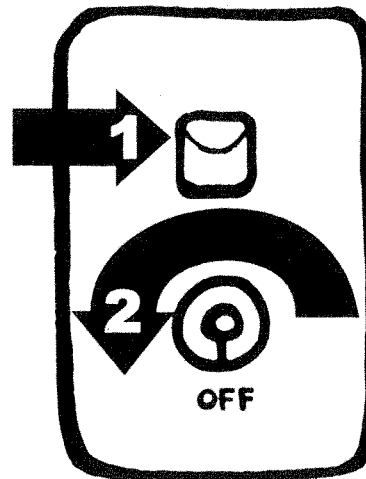
## Airconditiona-ku

WARINYANKA



Window kutju alala.

PATILA



Urilkutu pakara, buttona  
kutjujara patila.

## cd rom

The pilot cd rom accompanying this report has been designed for a general anangu audience to provide information about water resource management issues at the same time as trialling the effectiveness of the medium of cd rom as an educational tool on AP Lands.

The cd is one component of a campaign. There are limitations to using any single medium and some forms of media including print, paintings and video have particular limitations for the purposes of this project, as outlined in *Methodology*.

cd rom has particular qualities which make it a suitable medium:

- it is an audio-visual communication
- it is interactive
- it can hold a large amount of information, more than needed for the whole resource management storyboard
- cd lends itself to animation as well as video or other illustration, thus does not become obsolete when someone passes away
- the variety of sound and types of images that can be stored on a cd give it the potential to engage the user and therefore be an effective teaching device.
- it can be used in small groups as well as by individuals
- it is durable, more durable than paper or video

At the same time, it is a relatively new and potentially expensive medium. It is desirable to exploit the whole range of its qualities and maximise its potential through good design.

In order to find an excellent operator, three interactive media organisations were invited to make a submission to activate a storyboard designed by Kutjara. The successful submission was **mediant**, a group based in Alice Springs.

The pilot has been designed to indicate the range of resource management topics, but the budget only allowed development of the home page and the water story from aquifer to household usage. This was including in-kind contributions from those involved.

The water story on cd rom covers the following topics, which were also treated verbally with a whiteboard in community meetings:

- the importance of water
- traditional anangu water management
- hydrological cycle (exchange of water between atmosphere, earth surface and underground) including filling of aquifers
- Two kinds of aquifers:
  - intergranular (water-retaining sand or soil) which is shallower and replenishes more quickly,
  - deeper older deposits trapped in rock formations, like underground tanks.
- Soaks, wells and bores: the significance of this part of the story is that while soaks and wells tap groundwater nearer the surface that replenishes with some regularity, bores tap water supplies deeper underground, that are older, and do not replenish at the rate at which they are being used, if they replenish at all.
- Methods of pumping water: windmills, electric pumps, solar pumps. (Subsequent information may deal with care and maintenance of bores and mills - the cd rom has the capacity to deliver this information)
- Water reticulation to tanks, then houses and communities
- House water use (as per Pholeros research)
- Water conservation around the house, especially kids wasting water

#### **AUDIO-VISUAL DESIGN**

Some of the features of the visuals and sound on the cd are:

- a specially commissioned illustration of a hypothetical community to serve as a home page ('ngura'), to make it as appealing as possible
- the individual elements of the community (houses, creek, generator and so on) cover all the topics of the resource management story, so that they can be activated as other components are added to the cd rom
- a variety of visual media - coloured pencil illustration, vectorised drawings, video clip, still photographs, animation
- a variety of interactive spots
- voice-overs in Pitjantjatjara