

## CHAPTER 8

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### INFRASTRUCTURE

1. Many government programs aim to improve living conditions. For Indigenous people, particularly those living in rural and remote areas, living conditions could be viewed as a function of sustainable housing and infrastructure, plus municipal and environmental services.

2. This Chapter focuses on infrastructure and associated services, defined as follows.

- (i) *Community infrastructure* — provision of water and power supply, sewerage and waste water systems, and transport facilities, and the ongoing support for operation and maintenance of these facilities.
- (ii) *Municipal type services* — planning, regulation and building control, rubbish disposal, maintenance of local roads and drainage.
- (iii) *Environmental health services*<sup>1</sup> — provision of public health advice, preparation of community management plans, community education, home living skills assistance, and employment of essential service and environmental health workers.

3. Infrastructure and associated services are closely related to the provision of housing. Effective housing requires reliable water and power supplies, efficient removal of waste and environmental health services. In many communities, the provision and maintenance of access roads, airstrips and barge landings are also important. Municipal and environmental health services are needed to plan and maintain a healthy living environment. As with housing, expenditure required for infrastructure is both capital (construction and installation) and recurrent (operation and maintenance). Expenditures for municipal and environmental health services are largely recurrent.

### INDIGENOUS NEED FOR INFRASTRUCTURE AND ASSOCIATED SERVICES

4. Infrastructure services provided for many Indigenous families living in cities and towns are the same as those provided for other Australians in similar circumstances.

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<sup>1</sup> The health related aspects of environmental health services are discussed in more detail in Chapter 6.

However, this is not the case for many Indigenous people who live in remote areas, and for Indigenous communities living on their own land or in town camps.

5. The provision of infrastructure and associated services to small populations in remote areas can be difficult and costly. In these circumstances, disagreements about which sphere of government and which government agency is responsible for services are common. The questions of responsibility have sometimes been associated with uncertainties about land tenure issues. The result is that some Indigenous communities lack the basic quality of infrastructure (water and power supply, sewerage systems and roads), that the vast majority of Australians take for granted.

6. The most recent information on infrastructure and associated services is found in the 1999 Community Housing and Infrastructure Needs Survey (CHINS)<sup>2</sup> (conducted by ABS on behalf of ATSIC), which collected information about all discrete Indigenous communities<sup>3</sup>. Table 8-1 shows some details of these communities. Nearly 75 per cent of discrete communities have fewer than 50 people. 80 per cent of these communities are in the Northern Territory and Western Australia.

**Table 8-1** DISCRETE INDIGENOUS COMMUNITIES, 1999

	NSW <sup>(a)</sup>	Vic	Qld	WA	SA	Tas	NT	Total
Total discrete communities	67	2	149	285	106	1	681	1 291
Usual population	9 103	250	29 440	17 161	5 254	70	48 716	109 994
Average population per community	136	125	198	60	50	70	72	85
Number of communities with fewer than 50 people	9	0	105	200	79	0	550	943
Proportion of communities with fewer than 50 people	13.4	0.0	68.5	70.2	74.5	0.0	80.8	73.0

(a) The ACT is included in NSW.

Source: *Community Housing and Infrastructure Needs Survey*, produced by ABS on behalf of ATSIC, Canberra, Australia 1999.

7. The CHINS survey was the second of its kind<sup>4</sup> and collected data on infrastructure and associated services as well as detailed information on community housing. The key findings relating to infrastructure include:

<sup>2</sup> ABS *Housing and Infrastructure in Aboriginal and Torres Strait Islander Communities: Australia*, Catalogue No. 4710.0, Canberra, 1999. This survey covered 1949 Indigenous Housing Organisations and 1291 communities.

<sup>3</sup> A 'discrete Indigenous community' is defined as 'a geographic location, bounded by physical or cadastral boundaries, and inhabited or intended to be inhabited predominantly by Indigenous people, with housing or infrastructure that is either owned or managed on a community basis.' (ABS)

<sup>4</sup> A similar survey also funded by ATSIC, the Housing and Infrastructure Needs Survey (HINS), was undertaken in 1992.

- (i) 121 communities had an unreliable water supply (compared with 300 in the 1992 Survey), and 36 of these communities had a population of less than 100 people;
- (ii) there were 17 communities with no water supply in 1999 (compared with 56 in 1992<sup>5</sup>);
- (iii) no water quality testing was undertaken for 64 of the 233 communities not connected to a town water supply, and a further 58 failed a water test in the previous year;
- (iv) 71 communities had no sewerage system (compared with 137 in 1992) and 60 of those communities had a population of less than 20 people;
- (v) overflows and leakages of sewage in the previous twelve months were reported in 59 per cent of communities with a population of 50 or more, affecting 2428 or 15 per cent of all community dwellings;
- (vi) 133 communities had no electricity supply (compared with 251 in 1992) and 118 of these communities had a population of less than 20 people;
- (vii) power interruptions occurred at least 20 times in the previous year in 57 communities with a population of 50 or more, affecting 18 490 people;
- (viii) inadequate drainage of waste water was identified in 41 out of 206 communities with a population of 50 or more;
- (ix) there was organised rubbish collection in 93 per cent of the communities with a population of 50 or more;
- (x) 352 communities carried out maintenance programs for community assets, often conducted by CDEP;
- (xi) 72 per cent of communities with a population of 50 or more had no access to an environmental health worker; and
- (xii) 98 communities had no strategic development plan — 25 of these had a population of 100 or more persons.

8. While infrastructure remains inadequate in many communities, the situation is improving. Comparisons of data from the 1999 and the 1992 surveys may be affected by differences in the way the surveys were conducted; nonetheless they indicate improvements in the availability of water, sewerage and electricity.

9. The significance of poor infrastructure and its impact on environmental health in rural and remote areas is illustrated in the Figure 8-1, which shows the number of hospital separations by Indigenous people, arising from some environmental related

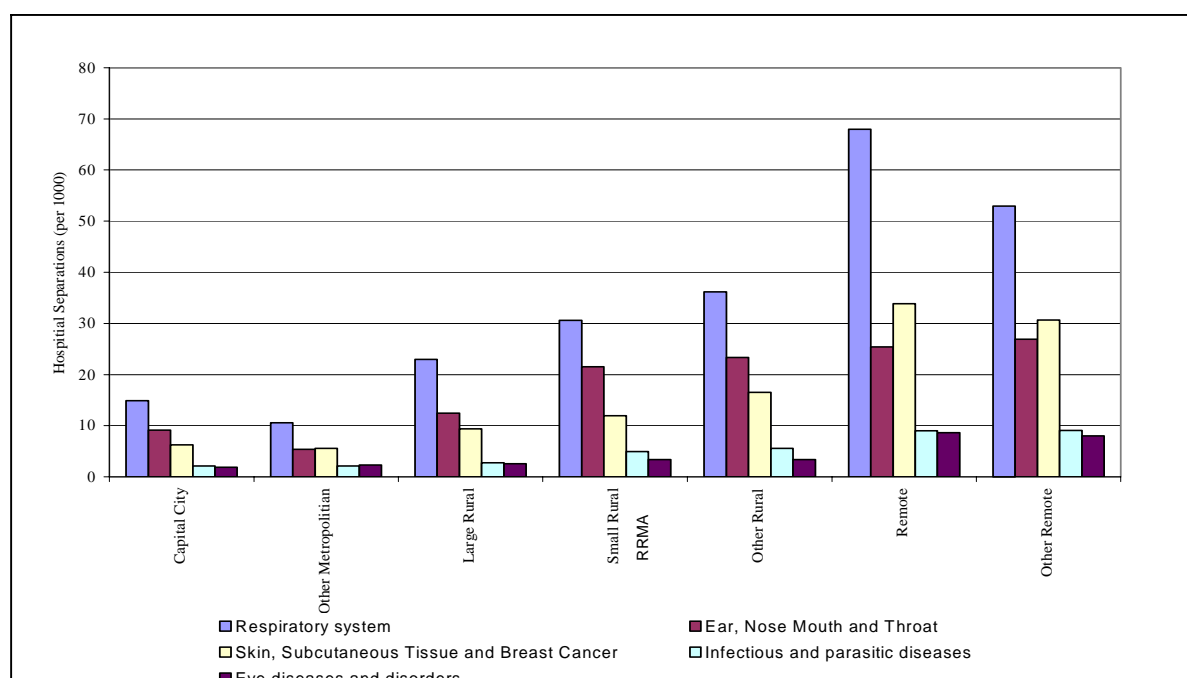
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<sup>5</sup> ATSIIC Annual Report 1999-2000.

diseases. Because data based on ARIA were not available, we have used the Remote, Rural, Metropolitan Area (RRMA) classification of area in this presentation.

10. **Access to adequate infrastructure services is only likely to be an issue for Indigenous people living in remote locations, or in communities on Aboriginal land, including those adjacent to urban centres where responsibility for the provision of local government type services may be unresolved. While there have been improvements over recent years in the provision of infrastructure for Indigenous communities in remote locations, needs are still high in many small remote communities.**

**Figure 8-1** HOSPITAL USE BY INDIGENOUS PEOPLE<sup>(a)</sup>, ENVIRONMENTAL RELATED CONDITIONS, 1996-97



(a) Based on place of residence of the patient  
 Source: AIHW, Morbidity database 1996-97.

## POLICIES, PROGRAMS AND FUNDING

11. Three key policy considerations underpin the infrastructure function. They are:

- (i) the construction and maintenance of infrastructure associated with water, sewerage, power and like facilities;

- (ii) the maintenance and management of all facilities within communities, often defined as environmental health; and
- (iii) the delivery of services to small communities or homelands.

12. In mainstream Australia, the delivery of infrastructure and associated services is usually the responsibility of State and local governments. However, for many years ATSIC and its predecessors have been involved in providing such services to Indigenous people, primarily to communities located well away from cities and towns. The provision of services by each level of government is outlined below.

### ***Commonwealth Programs***

13. The ATSIC Community Housing and Infrastructure Program (CHIP) is the largest Commonwealth program providing infrastructure. The CHIP program provides for capital and recurrent funding for the construction, operation and maintenance of infrastructure and essential community services for those Indigenous communities not serviced by mainstream agencies.<sup>6</sup> It has four distinct infrastructure components:

- (i) the National Aboriginal Health Strategy (NAHS) — in 1999-2000, \$30.8 million was allocated for major infrastructure projects;
- (ii) provision for minor capital items — \$15.5 million in 1999-2000 distributed by ATSIC Regional Councils;
- (iii) expenditure on municipal services — \$38.4 million in 1999-2000, including the maintenance and operational costs of power and water supplies, sewerage and other essential services; and
- (iv) funds provided through bilateral agreements with Western Australia (\$9.1 million in 1999-2000) and South Australia (\$1.4 million in 1999-2000).

The provision of these programs is closely linked to the planning and provision of ATSIC's housing programs.

14. The funding for CHIP was increased under the National Aboriginal Health Strategy in 1990<sup>7</sup>. It included \$171 million, over five years, for Indigenous housing and infrastructure, with an environmental health focus. In 1994-95 the Commonwealth allocated a further \$338 million for the Strategy over the next five years<sup>8</sup>. The current NAHS program is funded from this additional funding. It is nationally managed, and differs from past programs in that it uses detailed community planning and outsourced program managers in deciding the allocation of funds within States on a needs basis.

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<sup>6</sup> ATSIC Annual Report 1999-2000.

<sup>7</sup> This refers to the Government's Strategy – subsequently, the acronym NAHS refers to the ATSIC program.

<sup>8</sup> Evaluation of NAHS 1995.

15. The ATSI-Community Assistance Program (AACAP) began in 1996-97 and is jointly funded by ATSI and the Department of Health and Aged Care (DHAC) as an extension of the NAHS program. It uses the Australian Army as the project manager. Initial projects totalled \$11.6 million, but in 1998-99 DHAC and ATSI each agreed to contribute an additional \$20 million over four years.

16. Table 8-2 shows the regional allocation of NAHS funds over the last five years. It indicates that NAHS funding for infrastructure has been concentrated in remote and sparsely populated areas.

**Table 8-2** NAHS INFRASTRUCTURE EXPENDITURE, PER CAPITA, 1995-96 TO 1999-2000

ATSI Region	ATSI Region	ATSI Region	ATSI Region
\$pc	\$pc	\$pc	\$pc
Torres Strait 3661.9	Derby 1515.2	Tamworth 96.4	Coffs Harbour 14.9
Warburton 3458.7	Geraldton 1117.2	South Hedland 450.6	Brisbane 6.6
Ceduna 3056.1	Katherine 1054.3	Cairns 98.3	Perth 5.2
Aputula 2619.6	Jabiru 634.5	Rockhampton 120.6	Wagga 2.0
Cooktown 2075.4	Nhulunbuy 444.1	Mount Isa 37.0	Queanbeyan 0.0
Kununurra 1757.8	Kalgoorlie 348.1	Bourke 108.8	Sydney 0.0
Port Augusta 1726.9	Townsville 342.6	Hobart 90.6	Roma 0.0
Broome 1423.2	Alice Springs 902.5	Wangaratta 23.4	Narrogin 0.0
Tennant Creek 1450.9	Darwin 203.0	Ballarat 37.2	Adelaide 0.0

Source: ATSI and TSRA unpublished data.

17. Table 8-3 shows the regional allocation of 1999-2000 expenditure under the ATSI Regional Council infrastructure and municipal services programs. Again, it shows that remote and sparsely populated regions received most assistance.

18. Care should be exercised when interpreting these tables. High expenditure in past periods may not continue in the future. This is potentially the case with NAHS, which is allocated to communities that are most in need — future funds will be allocated to communities most in need at that time, which could be in different regions.

19. In the Housing Chapter, the ongoing need for major upgrades and ongoing maintenance was highlighted as being of particular importance. The same is true for infrastructure facilities — it is vital to ensure that facilities are monitored and continue to function properly. This is currently addressed:

- (i) through ATSI (although there is limited capacity to continue to provide both new facilities and recurrent funds from this source);
- (ii) by State authorities providing recurrent funding to run and maintain services; and

(iii) by local government providing recurrent funding to maintain services.

However, greater certainty about the ongoing maintenance and management of key facilities and services is important for the development of Indigenous communities.

**Table 8-3** COMMUNITY INFRASTRUCTURE AND MUNICIPAL SERVICES EXPENDITURE, 1999-2000

ATSIC Region	ATSIC Region	ATSIC Region	ATSIC Region
	\$pc	\$pc	\$pc
Warburton	2850.4	Cooktown	868.8
Kununurra	1587.4	Nhulunbuy	782.1
Broome	1578.6	Jabiru	752.9
Derby	1495.0	Katherine	725.7
Port Augusta	1301.3	South Hedland	610.1
Tennant Creek	1223.9	Bourke	478.2
Aputula	1072.6	Mt Isa	429.7
Alice Springs	1064.9	Torres Strait	420.0
Ceduna	964.1	Kalgoorlie	371.0
		Darwin	362.1
		Geraldton	347.1
		Roma	247.9
		Cairns	215.6
		Adelaide	133.2
		Rockhampton	129.6
		Narrogin	116.8
		Tamworth	88.0
		Wangaratta	67.9
		Wagga Wagga	53.5
		Ballarat	50.2
		Townsville	48.9
		Perth	44.5
		Hobart	43.9
		Coffs Harbour	35.5
		Queanbeyan	19.3
		Sydney	11.7
		Brisbane	2.0

Source: ATSIC Annual Report 1999-2000, TSRA Annual Report 1999-2000.

20. **Essential Service Agreements.** ATSIC has negotiated agreements (the Remote Area Essential Services Agreements) relating to infrastructure with two State Governments. In Western Australia, the *Agreement for the Provision of Essential Services to Indigenous Communities* was signed in September 2000. Under this agreement, the Western Australian Government committed \$9.55 million in 2000-01 for services in 67 specified Indigenous communities, and agreed to expand the number of communities eligible for funding to 72<sup>9</sup>. State funds are targeted towards repairs and maintenance of facilities, and environmental health programs. For its part, ATSIC committed \$9.1 million, mainly for the provision and maintenance of new capital facilities in approximately 112 communities. One of the main features of the agreement is that it clearly identifies the responsibilities of the two parties.

21. Under the *Agreement for the Provision of Essential Services Infrastructure* between South Australia and ATSIC, the Department of State Aboriginal Affairs matches funds provided by ATSIC for 18 communities, and has accepted responsibility for the expenditure of those funds. ATSIC and South Australia each provided \$1.4 million for recurrent costs of essential services in the 18 communities in 1999-2000. ATSIC also funded rubbish collection, landscaping, repairs and maintenance to infrastructure assets, and power supplies to 42 other communities in South Australia.

22. The Queensland Housing and Infrastructure agreement with ATSIC, to be formalised in the coming months, is expected to be the first agreement to combine housing

<sup>9</sup> Western Australia and ATSIC Joint Communique, September 2000.

and infrastructure service delivery. The detailed arrangements arising from this agreement are not yet clear, but it appears to be a step forward because combining housing and infrastructure should enhance planning and co-ordination.

23. The funding of infrastructure projects by ATSIC, while arguably something that is not the responsibility of the Commonwealth, has been important in supporting and sustaining many rural and remote communities and has enabled the growth of homelands and outstations. Accepting that at least the initial funding of many services has been and will be undertaken by ATSIC, a crucial follow up step is to ensure that services provided are effective and sustainable.

### ***State Programs***

24. The New South Wales Government has established the Aboriginal Community Development Program (ACDP) to address environmental health issues in disadvantaged Indigenous communities. The program aims to upgrade housing and infrastructure and provide new housing where required. It commenced in July 1998 and \$200 million will be spent over a seven-year period.

25. The ACDP is to be implemented in stages following the identification of Indigenous communities that are in most need of housing and infrastructure development. A forward program of eight priority communities has been approved with an expected budget of \$55 million.

26. The Queensland Government's Aboriginal and Torres Strait Islander Infrastructure Program (ATSIIP) commenced in 1995-96 to meet a shortfall in basic services and environmental health infrastructure. In 1999-2000, \$16.1 million was provided through ASIIP, mainly for upgrading sewerage and water supply facilities in selected remote communities.

27. The Torres Strait Regional Authority (TSRA) signed an agreement, covering major infrastructure developments in the Torres Strait, with the Commonwealth and Queensland Governments in 1997, and renewed it in January 2000. The agreement covers joint funding of \$10 million in the first three years of a ten-year plan. The estimated total cost is \$60 million. The intention is that all the Torres Strait Islands will have adequate water and sewerage facilities at the end of the period.

28. We observed progress being made in the provision of water and sewerage infrastructure in the Torres Strait. Nevertheless, there are ongoing concerns about the capacity of power generation for the Torres Strait Island communities (except for Thursday Island), and many others in Queensland, which have permanent load restrictions applied to their use of electricity by the State owned electricity corporation.

29. In 1996-97, the Western Australian Government committed \$25 million over seven years to the Aboriginal Community Strategic Investment Program (ACSIP). It seeks to achieve sustainable improvements in the health, living standards and quality of life of Indigenous people in large, permanently established remote communities. Initiatives



include roads, drainage and other community facilities being upgraded or replaced, with community members involved in all aspects of planning and carrying out the works.

30. Western Australia also operates the Management Support Program which provides assistance to Aboriginal communities to manage their ongoing need to carry out necessary repairs and maintenance to infrastructure and housing. The program provides assistance to identify work required in consultation with the community, and to implement an appropriate works program. All maintenance and upgrade work is carried out by community members who receive on the job training from qualified tradespeople.

31. Initiatives underway in the States indicate that governments are improving the planning and co-ordination of services, and are increasing funding for both capital and recurrent expenditure on infrastructure and associated services

32. Figure 8-2 contains an outline of the Commonwealth and State program arrangements for the provision of infrastructure and related services to Indigenous communities.

### ***Local Government***

33. Local government has a key role in planning, building approval and inspection services relating to housing and infrastructure, and in the delivery of many other community services. Some of the forms of land tenure in the States effectively mean that Indigenous land is 'private' and therefore beyond the responsibility of local authorities. Also as a result of land tenure arrangements, many communities do not pay rates. Combined with the limited resources available to local government, these facts have meant that some Indigenous communities do not receive normal local government community services. Much of the under-supply of infrastructure and the poor building standards experienced in some communities are attributable to these barriers.

34. Legal impediments to the provision of infrastructure and environmental health services by local government can be overcome. Some local councils are actively pursuing innovative service arrangements with Indigenous communities. And there are a growing number of service agreements between ATSIC Regional Councils and local government authorities (often facilitated by State departments responsible for Indigenous policy). These agreements cover the provision of municipal type services, greater co-operation and the access of CDEP to contract arrangements for the provision of municipal services.

35. Co-operative arrangements between local government and some communities are also being developed to improve service delivery. For example, in Western Australia:

- (i) five communities in the Broome region have formed a committee to develop service agreements in the areas of town planning, environmental health and building inspection services;

- (ii) an agreement between Meekatharra Shire and the local Town Reserve has established a committee to co-ordinate the provision of rubbish collection and lighting; and
- (iii) the City of Kalgoorlie is establishing and maintaining infrastructure for visitors.

36. In many other regions, initiatives are in place to improve living conditions in Indigenous communities. It is clear that co-ordination through agreements and partnerships are important prerequisites for effective delivery of services. This also applies to the ongoing support and maintenance of facilities.

**37. Generally, programs and funding for infrastructure and associated services are well targeted to areas where these services would not otherwise be provided.**

**38. The desirability of collaborative and co-ordinated approaches to service provision, with a clear allocation of responsibilities, is recognised through the negotiation of essential service agreements between ATSIC and the States, and agreements with local government. Extending these partnership arrangements is important to improving outcomes and service co-ordination.**

### ***Environmental Health***

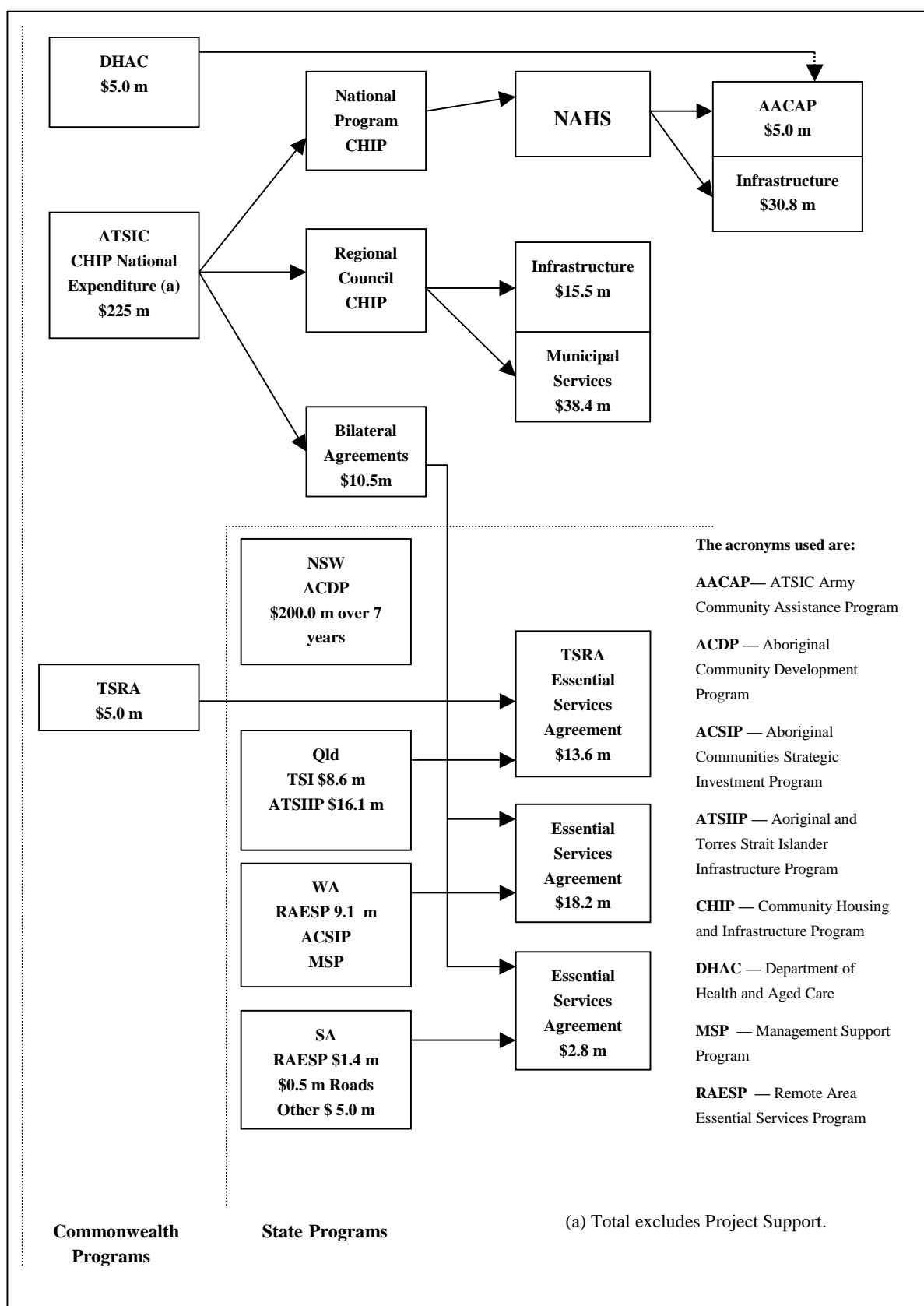
39. Effective environmental health management and planning is important because of the link to housing and health outcomes and to the longevity of capital. For example, poorly built or poorly functioning facilities can lead to a much shorter economic life, and health clinics will continue to deal with preventable health conditions while environmental health issues are not adequately dealt with. Many parties to the Inquiry argued that environmental health initiatives are relatively cheap methods of making large improvements in the health and housing status of Indigenous people.

40. In some respects, environmental health is a link between all functions. It recognises that multi-dimensional approaches are required to improve outcomes in Indigenous communities. It draws together many disciplines (social, economic and developmental) and many government agencies.

41. Environmental health outcomes directly or indirectly impact on the outcomes of all the functions we were asked to consider:

- (i) Health — better water quality, sewage removal and dust suppression can quickly reduce the incidence of several common diseases;
- (ii) Housing and infrastructure — houses that do not require major repairs, and have access to safe and reliable water supply and waste disposal are part of the environment necessary for better health;

**Figure 8-2** INDIGENOUS-SPECIFIC PROGRAMS AND EXPENDITURE, 1999-2000



- (iii) Education and Training — the promotion of healthy living practices supports more effective learning and the training of environmental health workers can contribute to the reduction of common diseases; and
- (iv) Employment — the provision of environmental health services leads not only to the employment of Aboriginal Environmental Health Workers but can also result in work for CDEP participants in municipal type service delivery (rubbish collection, community road maintenance and landscaping).

### ***Small Communities, Outstations and Homelands***

42. A key finding from our analysis of the CHINS data is that the communities in the greatest need are small. This highlights the issue of homeland settlements and the development of small communities where services are difficult to provide. It also raises jurisdictional disagreements on which government is responsible for service provision.

43. The evidence from CHINS is that progress is being made in the provision of basic infrastructure for Indigenous communities of more than fifty people. Providing services to smaller communities, however, presents a challenge to all levels of government. ATSIC plays an important role in the initial support of these emerging communities. If they become large enough, the States and local government may become involved.

44. In 1994, the Ministerial Council on Aboriginal and Torres Strait Islander Affairs decided that ATSIC, in consultation with the States and local government, should develop a policy on the provision of financial assistance for outstations. This decision was in response to the lack of planning and co-ordination in the development of new communities and difficulties in balancing the needs of large existing communities with those of small emerging communities. Pending the development of that policy, ATSIC placed a moratorium on its support for the development of new outstations.

45. In 1999, ATSIC released its National Homelands Policy. Under that policy, decisions on new outstations would be made by ATSIC Regional Councils, subject to the endorsement of their regional homelands plans, developed in accordance with national guidelines. ATSIC will lift moratorium on a region by region basis as Regional Councils complete their plans for new homelands.

46. Since Regional Councils bear the main burden of providing financial assistance for any new outstations, the National Policy requires them to identify and prioritise all housing and infrastructure needs in their region, including the need for new outstations. In setting priorities, Regional Councils are required to clearly balance the needs of existing communities with those stemming from the demand for new outstations. The National Policy makes it clear that people wishing to establish new outstations should not necessarily expect the same standard of housing, infrastructure and services as existing communities — different types of outstations and levels of occupation justify differing levels of infrastructure and support.

47. ATSIIC's National Policy also makes it clear that applications to develop new outstations will not be considered unless the applicants demonstrate that:

- (i) there are secure tenure arrangements for the land;
- (ii) the new outstation will be the principal place of residence of people for a significant proportion of the year;
- (iii) there is an adequate supply of water for the expected population; and
- (iv) community capacity exists to undertake the planning, management and other tasks associated with service delivery.

48. **The links between the provision of infrastructure and environmental health outcomes are well documented and improvements in facilities and services will have both short and long term impacts on the health of communities. Further, there are clear links between the provision of infrastructure and environmental health outcomes and the outcomes in all functions covered by this Inquiry.**

### *Measuring Infrastructure Need*

49. Measuring need for infrastructure and associated services involves an approach similar to that for housing. That is, there is a requirement to measure needs for specific facilities and services and for upgrading, as well as ongoing maintenance.

50. The approach we have taken assumes that needs for infrastructure and associated services are addressed by mainstream services in most areas of Australia. We note, however, that in some urban areas (town camps for example), the delivery of services can be problematic.

51. There are a number of possible indicators of infrastructure and associated service need. They are similar to those identified for health and housing, including:

- (i) health status — infant mortality, life expectancy, disease incidence;
- (ii) access to safe water — the quality and reliability of supply, whether houses are connected to piped water, regularity of water testing, and the incidence of environment related illnesses (such as diarrhoea);
- (iii) sanitation — the type and efficiency of sewerage disposal, and disease incidence;
- (iv) power — type and efficiency of power supply;
- (v) housing — housing need, including homelessness, overcrowding, improvised dwellings, unsafe or unhealthy housing and measures of the need for major upgrades and maintenance;
- (vi) solid waste management — whether served by rubbish collection, methods of waste disposal; and

(vii) availability of essential services and environmental health workers.

52. Using the CHINS data, Tables 8-4 to 8-6 provide an indication of where water, sewerage and power services are poor or unreliable.

**Table 8-4** NUMBER OF PEOPLE IN COMMUNITIES WHICH HAD SUFFERED WATER RESTRICTIONS<sup>(a)</sup>, 1999

ATSIC Region	Persons	ATSIC Region	Persons	ATSIC Region	Persons	ATSIC Region	Persons
Nhulunbuy	4787	Port Augusta	500	South Hedland	92	Brisbane	0
Torres Strait	2397	Bourke	460	Adelaide	60	Roma	0
Cooktown	2240	Derby	320	Wagga	50	Townsville	0
Jabiru	1333	Geraldton	312	Ceduna	15	Perth	0
Rockhampton	1100	Mt Isa	280	Queanbeyan	0	Broome	0
Katherine	993	Kalgoorlie	202	Coffs Harbour	0	Narrogin	0
Aputula	875	Cairns	200	Sydney	0	Hobart	0
Warburton	687	Tamworth	130	Wangaratta	0	Alice Springs	0
Kununurra	505	Tennant Creek	118	Ballarat	0	Darwin	0

(a) Includes only people in communities which had restrictions three or more times in the previous year.

Source: *Community Housing and Infrastructure Needs Survey*, produced by ABS on behalf of ATSIC, Canberra 1999.

**Table 8-5** NUMBER OF PEOPLE IN COMMUNITIES WITH NO SEWERAGE SYSTEM, OR AN INADEQUATE SYSTEM, 1999

ATSIC Region	Persons	ATSIC Region	Persons	ATSIC Region	Persons	ATSIC Region	Persons
Nhulunbuy	1843	Geraldton	200	South Hedland	12	Cairns	0
Torres Strait	1388	Derby	185	Queanbeyan	0	Rockhampton	0
Jabiru	1376	Coffs Harbour	140	Bourke	0	Roma	0
Aputula	1126	Kununurra	139	Sydney	0	Townsville	0
Cooktown	693	Tennant Creek	119	Tamworth	0	Adelaide	0
Port Augusta	578	Ceduna	89	Wagga	0	Perth	0
Broome	515	Warburton	82	Wangaratta	0	Narrogin	0
Katherine	319	Darwin	65	Ballarat	0	Kalgoorlie	0
Mount Isa	209	Alice Springs	33	Brisbane	0	Hobart	0

Note: An inadequate sewerage system includes those reported as having 'pit', 'pan' or 'other' type of toilet.

Source: *Community Housing and Infrastructure Needs Survey*, produced by ABS on behalf of ATSIC, Canberra, 1999.

53. The tables show that those in greatest need are located in the remote regions of Australia.

54. These data are just the starting point in measuring need. The statistical measures should then be combined with more detailed on the ground measures because of:

- (i) the necessity to take account of the nature of the product (in terms of required technologies and cost in particular locations);
- (ii) the lumpiness of the ‘capital’ component of infrastructure costs;
- (iii) the complexity of current responsibilities; and
- (iv) the need to take account for ongoing maintenance and recurrent support.

That is, it is necessary to undertake detailed analyses of the benefits (and costs) of individual projects.

**Table 8-6** NUMBER OF PEOPLE IN COMMUNITIES WITH NO POWER SUPPLY, OR INADEQUATE SUPPLY, 1999

ATSIC Region	Persons	ATSIC Region	Persons	ATSIC Region	Persons	ATSIC Region	Persons
Cooktown	261	Warburton	22	Wangaratta	0	Port Augusta	0
Kununurra	260	Alice Springs	14	Ballarat	0	Perth	0
Nhulunbuy	206	Mount Isa	8	Brisbane	0	Narrogin	0
Aputula	202	Queanbeyan	0	Cairns	0	South Hedland	0
Ceduna	155	Bourke	0	Rockhampton	0	Derby	0
Katherine	133	Coffs Harbour	0	Roma	0	Kalgoorlie	0
Tennant Creek	122	Sydney	0	Torres Strait	0	Geraldton	0
Jabiru	80	Tamworth	0	Townsville	0	Hobart	0
Broome	35	Wagga	0	Adelaide	0	Darwin	0

Note: An inadequate power supply includes those reported as having a supply from an ‘other’ source.

Source: *Community Housing and Infrastructure Needs Survey*, produced by ABS on behalf of ATSIC, Canberra 1999.

***Measuring Need — the NAHS Approach.***

55. NAHS aims to provide services in an integrated way to communities with the greatest need, and to increase State and local government commitment to infrastructure projects. It can cover all projects with a cost exceeding \$500 000 but, in practice, the average project cost is about \$2 million. Table 8-7 shows the purposes for which infrastructure funds have been used over the last five years.

**Table 8-7** NAHS FUNDS RELEASED, 1995-96 TO 1999-2000

	Infrastructure						Housing		Total	
	Water	Power	Roads	Sewerage	Other	Total	%	\$m		%
New South Wales	0.3	0.1	1.4	0.4	0.2	2.4	1.5	27.5	15.3	30.0
Victoria	0.2	0.1	0.0	0.2	0.1	0.7	0.4	2.1	1.2	2.8
Queensland <sup>(a)</sup>	29.5	0.9	6.6	9.2	0.3	46.5	29.1	28.4	15.8	74.9
Western Australia	14.3	3.5	5.1	14.7	2.5	40.3	25.2	37.8	21.1	78.1
South Australia	7.2	0.6	3.6	2.9	2.8	17.1	10.7	3.5	2.0	20.6
Tasmania	0.6	0.5	0.0	0.1	0.2	1.4	0.9	0.7	0.6	2.1
Northern Territory	5.6	6.5	5.4	32.8	1.3	51.6	32.3	79.3	44.2	131.0
Project Management Fees <sup>(a)</sup>										37.4
<b>Australia</b>	<b>57.6</b>	<b>12.2</b>	<b>22.2</b>	<b>60.3</b>	<b>7.5</b>	<b>160.0</b>	<b>100</b>	<b>179.3</b>	<b>100</b>	<b>376.6</b>
<b>Share (per cent)</b>	<b>15.3</b>	<b>3.2</b>	<b>5.9</b>	<b>16.0</b>	<b>2.0</b>	<b>42.3</b>		<b>47.6</b>		<b>90<sup>(b)</sup></b>

(a) Including Torres Strait Regional Authority.

(b) The project management fees, which are not allocated by function, account for the remaining 10 per cent.

Source: ATSIIC and TSRA unpublished data.

56. Under NAHS, funds are allocated among the States on a basis that takes account of the need for additional housing and infrastructure, and the cost of providing the facilities. The current distribution is based on data from the 1992 Housing and Infrastructure Needs Survey<sup>10</sup>. The share of funds for each State is currently:

- New South Wales 11.5 per cent
- Victoria 1.5 per cent
- Queensland 20.4 per cent
- Western Australia 18.0 per cent
- South Australia 4.9 per cent
- Tasmania 0.5 per cent
- Northern Territory 43.2 per cent

57. A strict approach to needs allocation, according to the measurement of greatest need, might not use this first step. NAHS was initially run as a national program and addressed needs nationally. However, ATSIIC later decided that, while a sequential needs based approach to funding projects was sound, each State should benefit from each round of NAHS.

<sup>10</sup> The distribution for the next round of NAHS will use the 1999 CHINS.



58. Within each State, the funds are allocated to projects on the basis of detailed assessments and advice from contracted Program Managers. This involves four steps.

- (i) The identification of all communities in need, through discussions with ATSIC Regional Councils, ATSIC Regional Offices and relevant State government departments.
- (ii) The preparation of a detailed Health Impact Assessment for each community. This includes a desktop study, consultations with interested parties and site investigations. It covers the existence and quality of facilities such as housing, water and power supply, waste disposal and internal roads. Information is also collected on project sustainability, potential employment, potential for other financial support, community support, interaction with CDEP, use of appropriate technology and the capacity for the ongoing management of facilities.
- (iii) The information is analysed to produce a priority list that ranks communities by need, which is then provided to the State NAHS managers and the State Advisory Committees for comment. The final list of projects is then given to the ATSIC Board for endorsement.
- (iv) Funds are allocated to projects on the basis of the priority list, with communities funded down the list until funds are exhausted.

59. The availability of detailed information from the 1999 CHINS means it is possible to undertake assessments to broadly determine the overall need for infrastructure. This, in combination with methods for detailed community based assessments, means that an objective needs based approach can be applied to decision making. The next CHINS survey is to be undertaken to coincide with the 2001 Census, ensuring the continued availability of up-to-date information.

### ***Measuring Infrastructure Need in Two States***

60. ***The New South Wales approach.*** The approach used to allocate the ACDP funds among communities is similar to the NAHS approach, with an emphasis on community ownership of, and participation in, the process through a Community Working Party system.

61. The ACDP uses a number of plans, studies and reports to identify communities most in need. Communities are then prioritised according to:

- (i) an assessment of needs, with an emphasis on environmental and community health;
- (ii) reviews of Community Housing and Environmental Health Plans to assess sustainability;
- (iii) the scope of major and minor works required; and

- (iv) the need to assist communities to acquire skills to maintain the services and infrastructure.

62. Needs are identified using site analysis, community health and socio-economic profiles, employment and training opportunities, sustainability, environmental health analysis, assignment of responsibilities, the existence of strategic plans, budgets and costing, and other criteria<sup>11</sup>.

63. The planning undertaken under ACDP takes account of the NAHS, and *vice versa*, so that projects funded by New South Wales do not duplicate those of the Commonwealth.

64. ***The Western Australian approach.*** The Aboriginal Communities Strategic Investment Program (ACSIP) funds are targeted towards maintenance activities, increasing community management and expanding the employment of Environmental Health Officers and Aboriginal Field Support Officers. The aim is to improve monitoring and surveillance of environmental health need and supplement services in co-operation with local government and Aboriginal Environmental Health Workers. The allocation of funds is based on information obtained from a 1997 survey of the environmental health needs of Indigenous communities. That survey identified the communities with greatest need.

65. **The distribution of infrastructure funds on a needs basis should be achievable in practice. The approach adopted by ATSIC for the National Aboriginal Health Strategy is based on needs and has a high level of Indigenous involvement in the decision making process.**

## CONCLUSIONS

66. The main findings relating to infrastructure and associated services are as follows:

- (i) Access to adequate infrastructure services is only likely to be an issue for Indigenous people living in remote locations, or in communities on Aboriginal land, including those adjacent to urban centres where the responsibility for provision of local government type services may be unresolved. While there have been significant improvements over recent years in the provision of infrastructure for Indigenous communities in remote locations, needs are still high in many small remote communities.
- (ii) The desirability of collaborative and co-ordinated approaches to service delivery, with a clear allocation of responsibilities, is recognised through the negotiation of essential service agreements between ATSIC and the States, and agreements with local

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<sup>11</sup> Source: NSW Department of Aboriginal Affairs Submission, June 2000.

government. Extending these partnership arrangements is important to improving outcomes and service co-ordination.

- (iii) There are clear links between the provision of infrastructure and environmental health outcomes and the outcomes in all functions covered by this Inquiry. Needs in these areas remain greatest in very small communities.
- (iv) The distribution of infrastructure funds on a needs basis should be achievable in practice. The approach adopted by ATSIC for the National Aboriginal Health Strategy is based on needs and has a high level of Indigenous involvement in the decision making process.