Edited by
P. Loveday and
D. Wade-Marshall

Economy and People in the North





Australian National University North Australia Research Unit
Monograph
Darwin 1985

ERRATA

Page 181

The first paragraph under the heading

Company Motivation to Employ Aboriginals

should read:

The relative cost of Aboriginal labour.

The cost of labour could be expected to have an important influence on Aboriginal employment in mining. In remote areas labour costs tend to be high because of the need to attract workers and provide them with accommodation. Mining techniques at the major projects are, partly because of this, highly capital intensive. Employment opportunities are consequently restricted, and those that are available frequently require sophisticated technical knowledge.

Page 192

The sentence at the top of the page should read:

Mining companies could greatly assist Aboriginal advancement by guaranteeing to employ specific numbers of successful trainees from such courses.

'Provide a variety of employment opportunities' is a minor subheading and should not be underlined.

'Reliance on Corporate Social Responsibility is not enough' is a major subheading and should be underlined.

Unit

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Monograph

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PREFACE AND ACKNOWLEDGEMENTS

The papers in this volume were first presented at a conference held in Darwin late in 1983 under the auspices of the North Australia Research Unit. The title of the conference, Economy and People in the North, was chosen in the hope that a wide range of topics connected with northern development would be dealt with together. With the help of speakers from the departments of the Northern Territory Government and from other Universities, the aim was achieved.

The task of preparing the papers for publication has been laborious. Authors of papers have given some acknowledgements in the text, but both on their behalf and as editors, we wish to acknowledge gratefully the help of other people too, notably Elaine Sommer, Jeanne O'Connor, Gillian O'Loghlin and Anne Buffett.

COMMONWEALTH NORTHERN TERRITORY FINANCIAL RELATIONS

RUSSELL MATHEWS

Commonwealth/State Financial Relations

Financial relations between the Commonwealth and the Northern Territory need to be considered in the context of Commonwealth-State financial relations generally. These depend partly on constitutional provisions, partly on intergovernmental agreements, and partly on unilateral decisions of the Commonwealth Government which reflect its financial dominance rather than any constitutional provision or political superiority.

The Commonwealth's financial dominance arises principally from the effective monopoly over income taxation which it achieved through the uniform tax arrangements which it imposed during World War II, and which it has never relinquished. Although the Commonwealth was not given exclusive power to raise income taxes by the Constitution, it has effectively used its de facto control over this revenue source to override many other constitutional provisions relating to the assignment of taxing and spending powers among Commonwealth and State governments. The Commonwealth has thus imposed conditions on the kinds of taxes States may levy if they are to remain eligible for its general revenue grants (which were origianally provided to reimburse the States for the income tax revenue they lost under the uniform tax arrangements). It has assumed de facto control over all government borrowing in Australia, being assisted in this regard by being able to use its taxation revenues to underwrite Loan Council programs. And it has involved itself in most of the important expenditure areas for which the States have formal constitutional responsibility (such as education, health, housing, transport and local government), through the device of specific purpose payments which impose conditions on the States as to how the funds it provides are to be spent.

This part of the paper reviews the financial arrangements which have been developed in Australia to deal with matters of intergovernmental concern. These include: the formal assignment of taxing and spending powers under the Constitution; the tax sharing arrangements which have operated since 1976; the provision which has been made for horizontal fiscal equalisation through the Commonwealth Grants Commission; the payments which are made to State and local governments under the Commonwealth's specific purpose programs; and the arrangements for controlling public sector borrowing through the Australian Loan Council.

The second part of the paper will then examine the particular intergovernmental fiscal arrangements which operate as between the Commonwealth and the Northern Territory.

Taxing and Spending Powers

Although, as has been noted above, the Commonwealth has established a monopoly over income taxation, under the Constitution the Commonwealth and States have concurrent powers over all forms of taxation other than customs and excise duties. Unfortunately for the States, High Court decisions have excluded them from the major forms of indirect taxation which are available to State or provincial governments in other federations, on the ground that they are excise duties. It thus seems that the States cannot impose a retail sales tax or any other form of tax on commodities. There is, however, no restriction on their ability to tax services and they have managed to circumvent the High Court's prohibitions in various ways, for example by imposing licence fees relating to the value of past transactions. It is even possible that they could design a broad-based consumption tax which would survive the hazards of High Court interpretation; but if the States are to derive significant revenues from this

source it seems likely that they will need to seek some form of tax sharing arrangement with the Commonwealth.

The principal Commonwealth taxes are individual and company income taxes (which account for about 55 per cent of all Australian taxation), customs and excise duties and a selective wholesale sales tax. The principal State taxes are pay-roll tax, stamp duties, motor taxes, land tax, gambling taxes, liquor tax and licence fees. Local government taxes consist almost wholly of rates levied on unimproved or improved property values. Mineral royalties from offshore fields accrue to the Commonwealth, which has however agreed to share them with adjoining States. Other mineral royalties are controlled and derived by the States, which can also sometimes raise revenues from resource rentals indirectly through railway freights and other charges.

On the expenditure side, the Commonwealth has the responsibility for functions which are international or national in character, such as defence, foreign affairs and citizenship; or which relate to economic or other activities which extend beyond the limits of individual states, such as trade and commerce, banking and currency, and industrial arbitration (although in each of these there are exceptions which give the States powers within their own borders). The Commonwealth has also established the principal de facto if not de jure authority over the economic stabilsation and income distribution functions of government.

Although the States have formal responsibility for law and order, social services, local government and most forms of community and economic services including the provision of the infrastructure facilities required for economic development, as noted above the Commonwealth has formal responsibility for the provision of virtually all kinds of cash social service benefits to individuals or families, necessitating interaction with the States which have the constitutional responsibility for education, health, housing and welfare services.

Both the Commonwealth and the States operate business undertakings in fields such as transport, electricity, natural gas and water supply. The Commonwealth has constitutional responsibility for postal and telecommunication services.

Local government has traditionally been weak in Australia, its functions being largely restricted to roads and services to property, but there has recently been a tendency for local government services to expand in such areas as social welfare, community development and recreation activities. There is some local government involvement in business undertakings, but many services which are the responsibility of local governments in other countries (such as electricity, gas, water supply and sewerage) are provided by the States in Australia through so-called semi-government or statutory authorities. Fire and police protection, education, health and housing are carried out almost wholly by State governments in Australia, without significant local government involvement as in many other countries.

Tax Sharing Arrangements

Since 1976, general revenue assistance from the Commonwealth to the States under the uniform tax arrangements has been provided in the form of tax sharing grants. Under legislation which came into effect in 1982-83, the total amount of tax sharing grants to be paid each year was set at 20.72 per cent of the Commonwealth's total tax collections in the previous year [1]. However, for the years 1982-83 to 1984-85 a guarantee was provided to ensure that all States would receive an increase in their grants of at least 2 per cent in real terms in 1982-83 and 1 per cent in the other two years. Part of the guarantee was to be funded from the tax sharing pool itself, but with all States except Queensland expected to be subject to the guarantee in 1983-84 it has been estimated that additional Commonwealth payments will be necessary which will have the effect of increasing total tax sharing grants in that year to 21.21 per

cent of the previous year's Commonwealth tax collections. For 1983-84 only, the Commonwealth also agreed to make a 'special temporary revenue assistance grant' of $155.5 million to the States to help them with their severe budgetary difficulties. This was to be outside the tax sharing arrangements but the total amount was to be distributed among the States in accordance with the estimated 1983-84 tax sharing allocations.

Under the tax sharing arrangements, individual States were given the right to improve personal income tax surcharges or to grant rebates, to their benefit or cost. Assessment provisions, the basic rate structure, collection arrangements and tax administration were to remain the responsibility of the Commonwealth so that the essential uniformity of the personal income tax would be preserved; the Commonwealth would act as a State's agent in collecting any surcharge or granting any rebate, both of which were to be expressed in percentage terms. Separate provision was made for the equalisation of surcharges, so that through the Grants Commission each of the four less populous States would have the per capita yield of its surcharge raised to the average per capita yield which New South Wales and Victoria would obtain from an equivalent surcharge. So far no State has imposed surcharges or granted rebates, but the potential is there for the States to circumvent the Commonwealth's income tax monopoly if they so wish.

Other elements of the State tax sharing arrangements include: the Commonwealth's right to exclude from the tax sharing base changes in Commonwealth rates which it declares to be 'special surcharges or rebates'; arrangements for consultation between the Commonwealth and the States (which have been virtually ignored by the Commonwealth) on changes in Commonwealth taxation which affect the revenue base; and a largely irrelevant guarantee that no State will receive a smaller grant in any year in money terms than it received in the previous year.

Since 1 September 1981 the States have been receiving what are called identified health grants, which replaced hospital cost-sharing grants (or in the case of South Australia and Tasmania will replace those grants from 1 February 1984) and grants under community health and school dental programs. The grants are available for general purposes and will eventually be absorbed in the tax sharing grants; meanwhile they are being escalated in proportion to the increase in total Commonwealth tax collections in the previous year. The distribution of the grants does not reflect health needs but is taken into account in the Grants Commission's assessments of tax sharing relativities.

The distribution of the tax sharing grants among the States was initially made on the same basis as the distribution of the financial assistance grants which they replaced. However, following two reviews of State relativities by the Commonwealth Grants Commission, the distribution is being slowly modified, ostensibly to give greater weight to fiscal equalisation (see below).

As part of the tax sharing arrangements introduced in 1976, local governments in Australia became entitled to a specified share of the Commonwealth's personal income tax collections in the previous year; the present share is 2 per cent. The Commonwealth Grants Commission has the responsibility for advising on the interstate distribution of the local government tax sharing grants, which are paid through State governments. State Grants Commissions advise on the allocations among local governments within each State, in accordance with broad criteria specified in Commonwealth and State legislation which have regard to population and fiscal needs.

Unlike tax sharing arrangements in other countries, there is virtually no provision for effective State participation in decisions affecting the Australian arrangments. While the States have been given the right to impose personal income tax surcharges, it has been very difficult for them to exercise this right so long as the Commonwealth has not made tax room available by reducing its own rates (which it could have done while simultaneously reducing the level of tax sharing grants). At the June-July 1983 Premiers' Conference, however, a Working Group of Commonwealth, State and Northern Territory Treasury

Officers was appointed to examine longer term issues affecting the distribution of taxation powers between the Commonwealth and State/Territory governments; the Working Group was also to advise on the terms of reference for a review of State tax sharing relativities (see below).

Horizontal Fiscal Equalisation

The Commonwealth Grants Commission's traditional approach to fiscal equalisation has been based on the principle that special financial assistance, or what it calls a special grant, is justified to the extent necessary to enable the State receiving assistance to provide services comparable to those of other States, provided it imposes taxes and charges at comparable levels. Under the Commonwealth Grants Commission Act 1973, a State may apply for special assistance and have its application referred to the Commission for inquiry and report; such a State is called a claimant State. For the purposes of its comparisons of services, taxes and charges, the Commission has adopted a two-State standard based on the budgetary policies and experience of New South Wales and Victoria, which are called the standard States.

The Commission assesses a claimant State's needs by reference to what it calls the State's revenue needs and expenditure needs respectively. Revenue needs reflect differences in revenue-raising capacity as between the claimant and the standard States, while expenditure needs reflect differences in costs of providing government services comparable to those of the standard States. The comparisons are restricted to recurrent revenues and expenditures, but include debt charges and the results of business undertakings which have an impact on State revenue budgets, including railway and metropolitan transit authorities, country water supply and sewerage authorities, and irrigation and drainage authorities. Road finances and the results of business undertakings which generally operate on a profitable basis, such as electricity and metropolitan water supply and sewerage authorities, are not brought into the comparisons.

A claimant State's revenue needs are assessed, separately for each revenue category, as the difference between (a) the revenue the State would raise if it applied standard tax rates or charges to its own revenue base and (b) the revenue it would raise if standard rates or charges were applied to the standard revenue base and the resulting amount expressed as a per capita figure were to be multiplied by the claimant State's population. Separate calculations are made for each standard State and the results are averaged.

The claimant State's expenditure needs are assessed, again for each expenditure (or business undertaking) category, as the product of the State's population and the differential per capita expenditure which the State needs to incur in order to provide services of the standard range and quality. The differential expenditures may be due to differences in the number of units requiring services, resulting for example from demographic factors, such as, in the case of education services, differences in the proportion of school-age children to total population. The additional expenditures may also be attributable to differences in costs per unit of service, resulting from such factors as scale, population dispersion, social composition, age-sex composition and the physical and economic environment. Again separate calculations are made for each standard State and the results are averaged.

Both revenue and expenditure needs may be positive or negative and the claimant State's total needs are assessed as the sum of the assessed needs for all revenue and expenditure categories. The total needs as assessed by the Commission thus represent its judgment about the amount of financial assistance which the claimant State requires to enable it to provide services comparable to those of the standard States provided it imposes comparable taxes and charges. However, the needs so assessed may be partly met (or augmented) by differences in the per capita amounts of the tax sharing grants (and of some other grants such as those for certain education and health purposes) as between the claimant and the standard States. If the claimant State received higher (lower) per capita tax sharing (and other relevant) grants than the standard States, the difference is multiplied by the claimant State's population and the result

deducted from (added to) the State's total assessed needs to arrive at the assessed special grant which the Commission recommends for payment. The Commission's recommendations on special grants have always been accepted by the Commonwealth Government.

It will be clear from the foregoing that whether or not a State is eligible for a special grant will depend not only on its relative fiscal capacity as reflected in its assessed needs, but also on its relative share of the tax sharing (and other relevant) grants which the Commonwealth makes to the States. The distribution of the tax sharing grants after 1976 was such that the three original claimant States - South Australia, Western Australia and Tasmania - were receiving differential grants in excess of the total revenue and expenditure needs which were likely to be assessed by the Grants Commission. They had therefore ceased to apply for special grants and only Queensland, which was not the State with the lowest fiscal capacity but which was receiving relatively low tax sharing, education and health grants, was still a claimant State.

As one element of the tax sharing arrangements, the Commonwealth Grants Commission was required to conduct two inquiries between 1978 and 1982 for the purpose of reviewing the State tax sharing relativities. The Commission was asked to advise on the appropriateness of the population weights or adjustment factors (so-called State factors) which were being applied to State populations in order to determine the State shares of the total tax sharing grants. On the basis of a State factor of 1.00 for Victoria, factors for the other States ranged from about 1.03 for New South Wales to about 2.00 for Tasmania, implying that for every $1 per head of population which Victoria received by way of tax sharing grants New South Wales was receiving $1.03 and Tasmania $2.00, with the other three States ranging between these amounts.

The approach adopted by the Commission involved the adaptation of the fiscal equalisation principle which it had applied in assessing the needs of claimant States. In effect, the Commission assessed each State's per capita share as the sum of an equal per capita share of the total tax sharing funds available and the State's per capita revenue and expenditure needs. Because in this case needs were assessed by reference to a population-weighted six-State average standard, total needs were positive for some States and negative for others. By expressing the resulting per capita amounts as ratios of the Victorian amount, the Commission was able to assess the State factors which could be applied to State populations in order to calculate the respective shares of the total tax sharing grants.

After an exhausting inquiry, the Commission reported in 1981 that a change in the State factors was desirable. Its assessments indicated that South Australia, Western Australia and Tasmania were receiving larger shares than was warranted on a fiscal equalisation basis (that is, that their existing factors were too high), and that the shares (and factors) of the other three States were too low.

Little action was taken to implement these findings. However, the Commission was asked to undertake a further review, which was to include an additional year's data and was to incorporate a review of the distribution of the identified health grants which had recently been introduced. The Northern Territory was to be included in the review of health grant relativities but not in the tax sharing review.

The general thrust of the Commission's 1981 findings was confirmed in the report which it presented in 1982. The Commonwealth's reponse was to take action which purportedly would phase in the Commission's relativities (subject to a minor adjustment) over the three-year period 1982-83 to 1984-85. However, this action was accompanied by the decision noted above to guarantee each State real growth in its grants of 2 per cent in 1982-83 and 1 per cent in the other two years. Because the guarantees were to be financed mainly from the tax sharing funds themselves and because by 1983-84 all States except Queensland were subject to the quarantee, there was unlikely to be any significant shift

towards the Commission's assessed relativities. Furthermore, during the phasing-in period no State was to be eligible to apply for a special grant.

No provision was made in 1982 for a further review of tax sharing relativities as recommended by the Commission, but as noted earlier a Working Group of Treasury Officers has been appointed to advise on terms of reference for another review, to be completed by February 1985, of the distribution of tax sharing and identified health grants. Meanwhile, Australia is a long way from having achieved horizontal fiscal equalisation, due paradoxically to financial arrangements which have had the effect of over-equalising States with relatively low fiscal capacity.

Specific Purpose Payments

The principal specific purpose payments from the Commonwealth to the States , some of which are made in the form of grants and some as loans, consist of:

(a) grants for universities, colleges of advanced education and technical and further education, which are administered by the Commonwealth Tertiary Education Commission;

(b) grants for government and non-government schools, which are administered by the Commonwealth Schools Commission;

(c) grants for other educational programs, of which the most important are those for school-to-work transition (which will be subsumed within a so-called Participation and Equity Program from 1 January 1984) and for pre-schools;

(d) hospital cost-sharing grants, which have been or are in the process of being replaced by identified health grants, which as noted above are essentially general purpose funds and will eventually be absorbed in the tax sharing grants;

(e) Medicare payments, which will compensate the States for revenue lost from both public and private hospital patients and outpatients under the new Medicare program to be introduced from 1 February 1984;

(f) grants for home care services, children's services, Aboriginal advancement and a number of other welfare services;

(g) assistance for public housing under the Commonwealth-State Housing Agreement (CSHA), which provides for both grants and loans (repayable over 53 years at concessional rates of interest) on a $1 for $1 matching basis, as well as grants for pensioner and Aboriginal housing (the States also receive small recurrent grants and may allocate part of their Loan Council borrowing programs to public housing on the concessional loan terms which apply to the CSHA);

(h) grants for roads, under both a general roads program, which makes separate provision for national, arterial and local roads, and the Australian Bicentennial Road Development Program (the latter is being financed by a surcharge on motor spirit and distillate);

(i) grants and loans under the National Water Resources Program;

(j) grants for special employment programs (financed from budgetary savings resulting from the 1982-83 wages pause and now being phased out) and for the Community Employment Program;

(k) payments (recurrent and capital grants as well as loans) for natural disaster relief;

(l) interest and sinking fund contributions under the Financial Agreement; and

(m) grants to the States for on-passing to local government, of which the most important are the personal income tax sharing grants referred to above and allocations by the States of portion of their roads grants, as well as a number of grants made direct to local governments, of which the most important are those for aerodromes and children's services.

The above list is by no means exhaustive; there is a large number of smaller specific purpose programs in such areas as defence, urban and regional development, culture and recreation, transport, water supply and electricity, industry assistance, and law, order and public safety.

Although specific purpose payments must be expended in the manner designated by the Commonwealth, they usually do not carry matching or other onerous revenue conditions and the States are often able to substitute them and the expenditures they finance for their own revenues and expenditures. Under these circumstances, the principal effect of the specific purpose payments is to provide the States with alternative or additional revenues and the spending conditions do not unduly distort State priorities. However, the Commonwealth often imposes its own policy decisions on the States in relation to the assisted programs, thereby weakening State responsibility and administration without necessarily having adequate information on which to base its decisions.

Loan Council Borrowing Programs

Virtually all public sector borrowing in Australia - Commonwealth, State and local - is subject to control by the Australian Loan Council (the exceptions are Commonwealth defence borrowing and borrowing for temporary purposes). The Loan Council was established by constitutional amendment following the Financial Agreement of 1927. It formally consists of the Prime Minister and State Premiers (Treasurers also attend) and in principle the States should have as much influence on the Council's decisions as the Commonwealth. Indeed, with one vote each to the Commonwealth's two plus a casting vote, collectively they can out-vote the Commonwealth. In practice, however, the Commonwealth has been able to dominate the Council and can virtually make unilateral decisions about the level, pattern and terms of State and local as well as its own borrowing. It has been able to achieve this power partly as a result of its control over the Reserve Bank and partly through its superior revenue-raising capacity, achieved principally through its effective monopoly over income taxation.

When, as has happened in most years since the early 1950s, the proceeds of public loans have been insufficient to finance the State Loan Council borrowing programs as agreed by the Commonwealth, the Commonwealth has made up the shortfall by subscribing to special loans from its own resources (on the same terms as for Treasury Bonds issued to the public). The Commonwealth also makes capital grants to the States equal to one-third of the approved Loan Council programs, which thus consist partly of interest-free general purpose capital grants and partly of borrowing programs. As noted above, the Commonwealth also permits the States to allocate part of their borrowing programs to public housing, subject to their meeting the matching requirements under the Commonwealth-State Housing Agreement; such amounts qualify for the concessional loan terms of the Agreement.

In addition to the State Loan Council programs, the arrangements for which are governed by the Financial Agreement, under a so-called Gentlemen's Agreement the Loan Council also controls State semi-government and local borrowing. This is divided into two parts, borrowing for so-called larger authorities (those borowing more than $1.8 million in a year) and borrowing for the remaining smaller authorities.

Of the larger authorities, the Loan Council decided in 1982 that, for a trial period of three years commencing in 1982-83, the amounts and terms of

domestic borrowing by electricity authorities (Commonwealth as well as State) could be determined by the relevant governments without Loan Council approval. However, the States agreed to limit the 1983-84 borrowing by electricity authorities to the estimates they had provided to the Council.

The total amount of borrowing by larger non-electricity State authorities is determined and allocated between the States by the Loan Council. During recent years, the Loan Council has also permitted special additions to the larger authorities' borrowing programs, on a project-by-project basis, for infrastructure financing. About half of the projects were for electricity projects, which as noted above have since been freed from detailed Loan Council control. Because no new projects have been admitted since 1980-81, infrastructure borrowing is diminishing in importance after reaching a peak of one-third of all larger authority borrowing in 1981-82.

In 1983-84, as part of what has been a continuing process of easing Loan Council controls and moving in the direction of a market-oriented approach, interest rates, the timing and the terms and conditions of all non-electricity semi-government and local government domestic borrowing are being determined by individual Commonwealth and State governments and not by the Council. However, provision has been made for consultation between governments and for the regular exchange of information. Overseas borrowing by all larger authorities (including electricity authorities) is subject to an upper limit and the terms and conditions of such borrowing remain subject to both Loan Council approval (on a case-by-case basis) and the Commonwealth's agreement; the distribution of the overseas borrowing is to be mutually agreed by the States.

Since the early 1960s it has not been necessary for smaller authorities to obtain Loan Council approval for their borrowing, but they have been required to conform to Loan Council guidelines with respect to interest rates, terms and conditions. Under the new arrangements for borrowing by non-electricity authorities in 1983-84, the Loan Council Secretariat will publish indicative interest rates to apply to borrowing by smaller authorities. These will be maximum rates unless otherwise approved by individual governments in response to special circumstances. During recent years, most State governments have established central borrowing authorities to raise loans at competitive terms on behalf of smaller authorities.

There are several unsatisfactory features about the Loan Council arrangements, some of which stem from the Financial Agreement itself and some from the Commonwealth's usurpation of control and its use of the Council as an instrument of fiscal restraint. The recent shift towards greater flexibility in loan raising (as evidenced by the infrastructure financing and electricity authority arrangements) and towards the market determination of terms and conditions for all semi-government borrowing have aggravated rather than alleviated the weaknesses of the Council.

These relate to the severe curbs which have been placed on the aggregate level of general purpose State Loan Council programs, the distortion of capital spending priorities and the failure to ensure that the interstate distribution of capital funds reflects relative needs.

The Loan Council has also played a major role in keeping interest rates much too high in Australia, thereby aggravating the budgetary difficulties of the States and their authorities, limiting the opportunities for profitable private sector investment and for housing development and, because interest is itself a cost, contributing to the high level of inflation.

Since 1976-77, the total amount of general purpose capital funds has fluctuated around a level which has remained roughly constant in money terms. Because prices have almost doubled during this period, the real value of State general purpose capital funds has been nearly halved. As a result, a large part of the public sector capital stock has been run down to a dangerously inadequate level. It seems clear that, because they represent the category of expenditure

which can be most easily controlled by the Commonwealth, State Loan Council programs are residual in the determination of budgetary policy. It is in any case impossible to understand why general purpose capital programs have been so severely restricted when there are so many jobs that need doing in the public sector and so much unemployment and unused capacity in the private sector.

The arbitrary decisions which have been made by the Loan Council to favour particular categories of semi-government borrowing, such as infrastructure financing and borrowing by electricity authorities, relative to others and to State general purpose funds have also distorted the allocation of resources and unnecessarily inhibited the States from determining their own capital works priorities. Through its influence on the Loan Council and the distribution of its specific purpose capital payments, the Commonwealth effectively determines the overall patterns as well as the level of public sector investment in Australia, even though it has no way of obtaining detailed knowledge of expenditure needs across different capital works categories. The result is inefficiency, a lack of accountability and the absence of financial responsibility at either the Commonwealth or the State level for the decisions which are made.

The absence of any systematic basis for determining the interstate distribution of capital funds is mainly due to the provisions of the Financial Agreement itself, which make it very difficult to effect any change in the distribution from year to year to reflect relative needs. While they may be criticised on other counts, the recent arrangements for infrastructure financing and the Commonwealth's allocations of specific purpose capital payments have tended to bring the overall interstate distribution of capital funds more into line with relative needs.

Table 1

COMMONWEALTH PAYMENTS AND LOAN COUNCIL FUNDS AVAILABLE FOR STATES AND THEIR AUTHORITIES 1982-83

$ per capita

	N.S.W.	Vic.	Q'ld	S.A.	W.A.	Tas.	Total
Tax sharing grants and other special assistance	443	439	615	656	676	842	522
Health grants	88	75	38	7(b)	104	12(b)	68
General purpose capital funds (State Loan Council programs) (a)	83	86	74	134	94	223	92
Total general purpose funds	614	600	728	797	873	1,078	682
Specific purpose payments - recurrent	234	259	220	362	239	331	253
Specific purpose payments - capital	114	115	168	162	161	225	135
Total specific purpose payments	348	373	388	524	400	556	388
Direct payments to local authorities	3	2	6	4	4	16	4
Total payments	965	976	1,122	1,325	1,277	1,650	1,074
Borrowing by larger semi-government and local authorities (c)	61	71	76	25	35	5	59
Infrastructure borrowing (c)	12	6	24	-	4	24	11
Borrowing by smaller authorities	26	35	58	30	40	44	36
Total borrowing by semi-government and local authorities	99	112	158	54	78	72	105
Total payments and funds available	1,064	1,088	1,280	1,379	1,355	1,722	1,179

Notes: (a) Capital grants and borrowing programs.
(b) Hospital cost-sharing grants included in specific purpose payments.
(c) Excludes electricity authorities.

Sources: Commonwealth Government, 1983-84 Budget Paper No. 7, Payments to or for the States, the Northern Territory and Local Government Authorities 1983-84, A.G.P.S., Canberra, 1983, Tables 72, 84.

Commonwealth Payments to or for the States

Table 1 lists the main forms of Commonwealth financial assistance and other payments to the States in 1982-83. The figures are presented as per capita amounts to facilitate interstate comparisons.

Commonwealth/Northern Territory Financial Relations

Although the financial arrangments between the Commonwealth and the Northern Territory broadly conform to the pattern of Commonwealth-State financial relations described above, they differ in a number of important respects. These will be identified and described in this part of the paper, which will thus examine the special arrangements which operate as between the Commonwealth and the Territory.

Northern Territory Self-Government

When the Northern Territory became self-governing on 1 July 1978, to all intents and purposes it became a State. In its financial relations with the Commonwealth Government, however, it was treated as though it were a State rather than as a State with all the rights that that entailed. The financial arrangements which were entered into as a basis for self-government, while parallel to those which govern Commonwealth-State financial relations, were kept separate from the latter in most respects and in some cases included provisions which differed significantly from State arrangements.

The Basis of Northern Territory Self-Government

Unlike the States, whose legislative powers and relations with the Commonwealth are governed and protected by the Commonwealth Constitution as well as their own Constitutions, the Northern Territory derives its powers from the Commonwealth Parliament through the Northern Territory (Self-Government Act) 1978.[2] Not only are the powers thus conferred revocable by the Commonwealth Parliament but the Act itself provides that the Administrator may withhold consent to a proposed law which has been passed by the Legislative Assembly and that he may reserve a proposed law 'for the Governor-General's pleasure'. The latter provision effectively makes such a law subject to Commonwealth approval, since the Governor-General may disallow the proposed law or require amendements. Under the Act, the powers of the Legislative Assembly are stated quite broadly as being 'to make laws for the peace, order and good government of the Territory'. The preamble to the Act indicates that the Commonwealth Parliament considered it desirable to establish 'separate political, representative and administrative institutions in the Territory and to give the Territory control over its own Treasury'.

Memorandum of Understanding on Financial Arrangements

Before the Self-Government Act came into force, after hard bargaining the Commonwealth and Northern Territory Governments entered into an agreement on the financial arrangements which were to operate as between the two Governments. The agreement took the form of a Memorandum of Understanding.[3] After noting that the financial arrangements were to be modelled on Commonwealth-State financial relations generally, the Memorandum referred to a transitional year (which was the fiscal year 1978-79). During this year the necessary administrative and financial arrangements were to be developed for the transfer of functions (health and education were not transferred until 1 January 1979 and 1 July 1979 respectively) and the Commonwealth was to continue to provide the finance necessary to maintain existing services at current levels. The Commonwealth-State model thus operated effectively from 1 July 1979, by which time the overall level of Commonwealth assistance for 1979-80 had been agreed and divided among different forms of assistance. Thenceforth formulae and arrangements based on the State model were to operate, and specific reference was made to the Northern Territory's right to apply for special financial assistance through the Commonwealth Grants Commission.

The following forms of Commonwealth assistance were to be available to the Territory from 1979-80:

(a) general revenue assistance, corresponding to State tax sharing entitlements but escalated from year to year in accordance with a formula that had regard to both increases in net personal income tax collections in Australia as a whole and increases in the Territory's population;

(b) a so-called additional assistance grant, which unless replaced by a special grant was to be paid at a rate of $20 million a year for the three years 1979-80 to 1981-82 and was then to be reduced by $5 million a year until it was phased out;

(c) special financial assistance on the recommendation of the Commonwealth Grants Commission, on the basis that until the additional assistance grants were phased out the amount to be paid in any year would be either the additional assistance or the special grant, whichever was the greater;

(d) specific purpose revenue grants and capital payments (grants or loans) for all relevant programs under which the Commonwealth made payments to the States, as well as for any other purposes which might be agreed between the two Governments;

(e) general purpose capital funds on the same basis as State Loan Council programs and varying on a formula basis broadly in line with State programs, with one-third of the total being provided in the form of grants and two-third in the form of borrowing; and

(f) semi-government and local borrowing on the basis of an agreed formula, such borrowing to be included in the Commonwealth's semi-government program and to be guaranteed by the Commonwealth in appropriate circumstances.

The provisions of the Memorandum of Understanding and subsequent developments in Commonwealth/Territory financial arrangements will now be considered in greater detail under the principal headings which have a bearing on relationships between the two Governments.

Taxing and Spending Powers

Because the Territory's taxing powers are derived from the Commonwealth's power, it appears that in theory at least the Territory may have somewhat wider access to taxation sources than the States. For example, there would seem to be no constitutional bar to the Territory levying excise duties. However, this is likely to be a rather academic point since it is most improbable that the Commonwealth would allow the Territory to depart from the pattern of taxation which is available to the States.

Although the Memorandum of Understanding provided that ownership of most minerals would be vested in the Crown in right of the Northern Territory, which would therefore have the right to collect royalties, an exception was made in respect of uranium and other substances precribed under the Atomic Energy Act. The Commonwealth was to retain ownership of uranium but agreed to make a grant in lieu of royalties in the Territory. In the case of minerals produced on Aboriginal land, except for 1979-80 (when a deduction was made from the Territory's tax sharing grant) the Commonwealth assumed responsibility for making payments equal to royalties to the Aboriginal Trust Account established under the Aboriginal Land Rights (Northern Territory) Act 1976.

On the expenditure side, the Territory assumed responsibility for virtually all the functions performed by State governments in Australia. While this

included services to Aborigines under the transferred functions, the Commonwealth retained overall responsibility for policy planning and co-ordination in respect of Aboriginal affairs. The Commonwealth agreed to make provision for relatively high per capita expenditures on Aboriginals through its general purpose and specific purpose grants, while for its part the Territory undertook to give full consideration to the needs of Aborigines in setting its expenditure priorities.

The Commonwealth also retained control over the two great national parks in the Territory - Uluru (Ayers Rock - Mt. Olga) and Kakadu.

Tax Sharing Arrangements

In 1977-78 and 1978-79 the Northern Territory received global allocations from the Commonwealth which were intended to provide funds for both general purposes and specific purposes (some specific purpose funds were also provided separately in 1978-79). In 1979-80, funds were provided under various categories of general and specific purpose payments which more or less corresponded to those being provided for the States. The amounts of specific purpose grants and the additional asistance grant for that year were deducted from the agreed level of total revenue assistance, and the residual amount was designated the Territory's tax sharing grant for that year.

In 1980-81, the tax sharing grant was calculated by increasing the previous year's grant in proportion to both the increase in Commonwealth personal income tax collections in the previous year and the increase in the Territory's population in the current year. In 1981-82, the Territory's tax sharing grant was arbitrarily determined by the Commonwealth in the same way as for the States. In 1982-83 and subsequent years, following a change in the State tax sharing base from personal income tax collections to total Commonwealth tax collections, the Territory's tax sharing grant was increased in proportion to the increase in total tax collections in the previous year as well as to the increase in the Territory's population in the current year. In 1981-82 and later years, the Territory also began to receive identified health grants on the same basis as the States, in substitution for the hospital cost-sharing community health and school dental grants which it had previously been receiving.

The Northern Territory does not participate with the States in the tax sharing pool, its tax sharing grant being paid separately by the Commonwealth. Other ways in which the Territory's tax sharing arrangements differ from those of the States include:

(a) the escalation of the tax sharing grants each year by reference to population growth as well as the increase in tax collections, a provision which favours the Territory relative to the States;

(b) the absence of any guarantee that tax sharing grants will grow in real terms during the years 1982-83 to 1984-85, a provision which favours the States relative to the Territory; and

(c) the eligibility of the Territory for special grants (and additional assistance grants until 1984-85), whereas the States cannot apply for special grants during the period which ends on 30 June 1985.

Under the Memorandum of Understanding, the Territory was given the same right as the States (which likewise it has not exercised) to impose personal income tax surcharges or to grant rebates.

Other Commonwealth general revenue payments to the Territory which were provided for in the Memorandum of Understanding include the grant in lieu of uranium royalties referred to above and a payment in lieu of recreation leave and furlough entitlements in respect of officers who transferred from the

Commonwealth Public Service to the Northern Territory Public Service. Additional asssistance and special grants are also classified as general revenue payments.

Horizontal Fiscal Equalisation

Under the Memorandum of Understanding, fiscal equalisation for the Territory was to be achieved not through the distribution of tax sharing funds but by means of grants of special financial assistance to be paid on the recommendation of the Commonwealth Grants Commission. For the years 1979-80 to 1984-85, however, an additional assistance grant was to be paid on a diminishing scale unless the special grant recommended by the Commission for a particular year exceeded the designated amount of the additional assistance grant for that year.

In the years 1979-80, 1981-82 and 1982-83, the amount of the additional assistance grant exceeded the recommended special grant and was therefore the amount paid. (The Territory did not seek a special grant for payment in 1980-81.) In 1983-84 the Grants Commission recommended a special grant of $16.9 million; since this exceeded the additional assistance grant payable for that year ($10 million), the special grant was payable instead of the additional assistance grant.

Under the Grants Commission's normal procedures with respect to special grants, which operate in relation to Northern Territory applications in the same way as for the States, the special grant recommended for payment in a particular year may consist of two parts - a completion grant and an advance grant. The completion grant is the final settlement of any advance grant paid two years earlier in what was called the year of review; it is based on a detailed examination of the audited budget figures of the claimant State or Territory and of the standard States, which become available in the year between the year of review and the year of payment when the Commission receives submissions, conducts hearings and makes its assessments. The completion grant is then calculated as the difference between the assessed special grant for the year of review and any advance grant paid in that year. The advance grant is based on a conservative estimate of special assistance likely to be necessary in the current year. The special grant recommended for payment in a given year is then the sum of the completion grant for the year of review (two years prior to the year of payment) and the advance grant for the year of payment.

Except for the first year 1979-80, the Northern Territory has not sought an advance grant. It was to its advantage not to receive an advance grant so long as it was eligible for an additional assistance grant of greater amount than the likely completion grant payable in the same year, since the additional assistance grant would not be taken in to the calculation of the completion grant two years later whereas any advance grant assessed by the Commission would reduce the subsequent completion grant. With the receipt of a special grant in 1983-84 and the phasing out of the additional assistance grant in 1984-85, the Territory's policy with respect to applications for advance grants will no doubt be reviewed.

In its early reports on Northern Territory applications for special grants, the Commission referred to data problems which made it difficult to apply its preferred assessment procedures. These resulted from a lack of historical data on which to base its assessments and the difficulty of assessing needs for many expenditure categories when conditions in the Territory were so different from those in the standard States.

Further complications resulted from the fact that many of the Territory's revenue and expenditure policies reflected Commonwealth decisions taken before self-government, which could not be easily reversed even if they contribuited to below-standard revenue raising or above-standard expenditures. Moreover, the Memorandum of Understanding included a specific assurance by the Commonwealth that it would provide assistance 'sufficient to maintain standards at an overall

equivalent to that presently provided' pending review by the Grants Commission, subject to the Territory making a reasonable revenue-raising effort. Finally, the Commission was faced with the task of evaluating the Territory's claim that the Commission should assess needs for a wide range of unperformed or below-standard services.

In its 1983 Report, [4] the Commission referred to a number of related data problems which it said impeded the application of its usual budget analysis procedures. The first resulted from the fact that, when the Territory achieved self-government, provision was made for a global subvention to be paid by the Commonwealth to the Territory in the base year. However, there was no explicit agreement on or historical record of the extent to which this was intended to finance capital expenditures and different specific purpose programs as well as provide general purpose revenue assistance. This meant that there was continuing uncertainty about the extent to which the Territory's needs as assessed by the Grants Commission could be regarded as having been met from other Commonwealth financial assistance.

The second budget analysis problem was due to the fact that the Territory's accounts make no distinction between transactions by source of funds, so that it is difficult to separate out the recurrent revenues and expenditures which are relevant to the Commission's comparisons from the capital transactions which are not.

Significant changes in the Territory's administrative arrangements and consequential changes in revenue and expenditure classifications further complicated the tasks of analysis and comparison with transactions in the standard States.

The data problems meant that instead of assessing needs in accordance with its preferred methodology, by reference to standard States' policies as reflected in their per capita revenues and expenditures, the Commission was obliged to adopt different procedures which involved the danger that the Commission's needs assessments might reflect Northern Territory policies rather than disabilities attributable to factors beyond the Territory 's control.

The problem was not so great on the revenue side, where the Commission was generally able to eliminate the effects of differences in revenue-raising effort and apply the standard States' policies to the respective Territory and standard State revenue bases. In the case of one or two revenue items, however, where the Commission judged that the Territory's revenue-raising efforts were constrained by factors beyond its control the Commission used the Territory's own rates rather than those of the standard States in assessing the Territory's needs.

On the expenditure side, the Commission would have preferred to adopt what it calls the factor assessment method, whereby it would have estimated the Territory's differential costs of providing standard services, expressed as proportions of the average per capita expenditure of the standard States.[5] Under the factor assessment method, the factors contributing to cost differentials which the Commission would have sought to identify and quantify would be those associated with differences as between the Territory and the standard States in: the eligible population or number of units requiring services; scale; population-related factors such as dispersion, urbanisation, social composition and age/sex structure; and environmental factors related to the physical, climatic and economic environment.

The Commission was unable to adopt the factor assessment method because it could not obtain satisfactory data on which to make judgements about scale, dispersion, environmental and some other factors. Instead it was obliged to have resort to what it calls the modified per capita difference method, whereby it calculated differences in per capita exenditures as between the Territory and the average of the standard States, modified the Territory's expenditures for any policy differences which it could identify as contributing to the

expenditure differentials, and treated the residual differences as measures of the Territory's expenditure needs.

While the Northern Territory has supported the continued use of the modified per capita difference method, the Commonwealth Treasury in its 1983 submission to the Commission argued strongly for the adoption of the factor assessment method. It especially drew attention to what it regarded as the open-ended nature of per capita difference assessments, whereby the Territory could have its needs assessed by reference to its actual expenditures even if these reflected above-standard services or below-standard efficiency. Under these circumstances, there would be a temptation for the Territory to increase its expenditure from year to year in the expectation that the resulting cost would be largely reflected in a higher special grant. While modifications could be made to eliminate the effects of policy differences, these were difficult to identify and the Commonwealth Treasury noted that, except for business undertakings where substantial modifications had in fact been made by the Commission, the Territory's expenditure so far had been modified only in the direction of giving it credit for non-performed or below-standard services.

The Commission has always had serious reservations about using per capita differences as the starting point in its needs assessments, primarily because, as the Commonwealth Treasury submitted, it is difficult to identify and quantify the extent to which expenditure differences are attributable to disabilities (or advantages) giving rise to positive (or negative) expenditure needs, as opposed to policy differences resulting in above-standard (or below-standard) services or differences in efficiency for which the Territory itself should accept financial responsibility.

The modified per capita difference approach is especially vulnerable to criticism in relation to the Northern Territory, where the effectiveness of many expenditures seems to have been very low so that, for example, educational outcomes, health status or housing conditions often bear little relationship to amounts spent on education, health or housing services. For this state of affairs it seems that those receiving the services must often share responsibility with those providing them, although both may fairly claim that cultural differences and difficulties in evaluating and responding effectively to claims for government services make the Northern Territory's financial needs different in kind as well as in degree from those of the standard States.

If the Grants Commission were to continue to use the modified per capita difference approach, it would inevitably have to make judgements not only about the Territory's differential policies in relation to particular services but also about the effectiveness of those policies. There would be a real danger that the Commission would then appear to be making political judgements, which as an independent body concerned only with relativities it is not qualified to make, and which in any case are the prerogative and responsibility of the elected Government of the Northern Territory.

Although the Commission decided that, because of the data limitations that have been noted, it would have to retain the modified per capita difference method for the purposes of its 1983 Report, it published preliminary factor assessment calculations for the major education and health expenditure categories. These showed that, for pre-schools, government primary schools and general medical services in 1980-81 and 1981-82, the global factor disabilities embodying the individual factor assessments would have been substantially below those implied by the per capita difference calculations. For government secondary schools, on the other hand, the factor assessment approach was indicative of higher disability factors than those implied by the per capita difference calculations.

The Commission warned that the factor assessment calculations needed to be interpreted with caution; it had particular reservations about the appropriateness of the dispersion, social composition and isolation factors which were among those it identified as giving rise to disabilites. It therefore said it was seeking further submissions from the interested parties,

to whom details of its preliminary calculations would meanwhile be made available.

In the large expenditure categories of government primary and secondary schools and general medical servics (which includes hospitals), the Commission also published the results of ratio analysis which it had undertaken in an attempt to identify the source if not the cause of per capita differences as between the Territory and the standard States.

In the case of schools, the Territory was seen to have: a much higher proportion of school-age to total population and, in the case of primary but not secondary schools, a higher proportion of students in the school-age population; a higher proportion of students at government schools; higher staffing ratios, especially for ancillary staff; higher salaries per staff member; and, in the case of primary but not secondary education, a higher proportion of other expenditure to salary expenditure and a larger number of schools per 100,000 population.

The Commission's ratio analysis for hospitals indicated that more than half of the Territory's above-standard expenditures was attributed to above-standard levels of hospital usage, while the rest was due mainly to higher salaries and higher non-salary costs. The Commission's tentative view was that, for both schools and hospitals, the differences between the per capita difference assessments and the factor assessment calculations were more likely to be due to data deficiencies and inaccuracies in the measurement of factors than to differences in policy or efficiency. However, in the case of hospitals it considered that a portion of the higher unit cost was attributable to policies initiated by the Commonwealth before self-government.

Apart from the basic questions of methodology discussed above, major issues discussed in the Commission's 1983 Report, which related to the 1981-82 year of review, included the following:

(a) A claim by the Territory that expenditure on university planning should be included in the assessment of needs. This was not accepted by the Commission, on the ground that, because such expenditure was not consistent with recommendations of the Commonwealth Tertiary Education Commission, it was a non-standard service based on a policy of the Northern Territory Government.

(b) Decisions by the Commission to continue to include, in the Territory's needs assessments for government primary education and general medical services, an allowance for non-performed services to remote Aboriginal communities; and to give similar allowances for non-performed or below-standard services in the cultural areas of museums and art galleries, reference libraries and archival services.

(c) A request by the Territory to assess needs in relation to capital as well as recurrent expenditures on essential services in remote communities. Some capital expenditure had been identified in the global subvention received by the Territory at the time of self-government and the Commission took the escalated value of this into account in arriving at the territory's needs met from other Commonwealth sources for the year of review. The Commission decided that any expenditure in excess of this escalated amount reflected a policy decision which, both for that reason and because it was a capital item, should not be brought into the needs assessment for expenditures on remote community essential services. Needs continued to be assessed in respect of recurrent expenditures.

(d) Consideration by the Commission of the use of the factor assessment method in assessing needs for tourism, using total Australian populations as the eligible population as in the Commission's review of State tax sharing relativities. Mainly because it would have been inappropriate to single out only one expenditure category for factor assessment, the Commission decided to retain the per capita difference method for the year under review.

(e) A decision by the Commission to make its comparison of Darwin's bus services with all forms of metropolitan transit in the standard States, including metropolitan rail services as well as bus, tram and ferry services, while assessing zero needs (as opposed to negative needs) for non-metropolitan railways thereby making some allowance for disabilities incurred by the Territory in relation to other transport modes.

(f) A decision by the Commission to make a modification to the Territory's water supply and sewerage deficit to reflect the fact that it was making a below-standard revenue effort.

(g) A claim by the Territory that the Commission should not exclude from its comparisons salaries and administrative expenditures associated with capital expenditures. This was rejected by the Commission, which however accepted the Territory's argument that capital-related administrative expenditures had been included in the base year global subvention. It therefore decided to treat the escalated value of the base year amount as an offset to the needs met from other Commonwealth sources (i.e. through the Territory's tax sharing grant) for the year of review.

(h) Similar decisions by the Commission to exclude all road finances - revenues as well as expenditures - from its needs assessments,on the ground that the Territory's road needs could be determined separately under the road grants arrangements; but to deduct from the Territory's tax sharing grant the escalated value of an amount estimated to have been included for roads in the base year global subvention. In its 1982 Report,[6] the Commission had indicated that at that time its preferred approach for roads was to include road maintenance expenditures in its comparisons, but both the Territory and the Commonwealth Treasury supported exclusion and the Commission decided to adhere to the exclusion approach, which it had always adopted in State claimancy and relativities reviews.

Table 2 summarises for the year of review 1981-82: the Commission's per capita and total needs assessments for the main groupings of revenue and expenditure categories; the standard per capita amounts (the simple average of New South Wales and Victorian revenues and expenditures); the implied global disability factors (also on the basis of a two-State average factor, of 1.0000); and the calculation of the assessed special grant.

In the case of revenue groups, the per capita needs have to be deducted from the standard per capita revenues to calculate the Territory's standardised revenues, which provide a measure of the revenues the Commission judged the Territory could have raised from its revenue base year given a standard revenue-raising effort. In the case of taxation, it is thus implied that the Territory would have raised only $323.94 ($415.83 minus $91.89) per head of population by imposing the taxes that raised $415.83 per head in the standard States. The implied disability factors indicate the relationship of the Territory's standardised per capita revenue to the standard per capita revenue expressed as a factor of 1.0000. In the case of expenditure and business undertaking groups, standardised per capita amounts can be calculated by adding the standard per capita expenditures and the assessed needs per capita. In the case of education, for example, it is implied that the Territory needed to spend $835.35 ($398.07 plus $437.28) per head of population to provide the services which cost only $398.07 per head in the standard States; the implied disability factor of 2.0985 is derived by dividing the Territory's standardised per capita revenue by the standard amount.

Table 2

SUMMARY OF ASSESSED PER CAPITA NEEDS, STANDARD PER CAPITA AMOUNTS, IMPLIED GLOBAL DISABILITY FACTORS AND ASSESSED PER CAPITA SPECIAL GRANTS FOR THE NORTHERN TERRITORY, 1981-82

	Standard Per Capita $	Assessed Needs Per Capita $	Assessed Needs Total $'000	Implied Disability Factors (a)
REVENUE				
Taxation	415.83	91.89	11,650	0.7790
Territorial revenue and interest earnings	58.95	8.06	1,022	0.8633
Total	474.78	99.95	12,672	0.7895
EXPENDITURE				
Social Services -				
Education	398.07	437.28	55,440	2.0985
Culture and recreation	16.25	114.10	14,466	8.0215
Health services	262.14	401.74	50,933	2.5325
Welfare services	31.87	67.31	8,533	3.1120
Law, order and public safety	73.14	324.37	41,125	5.4349
Essential services - remote communities	0.04	191.52	24,282	(b)
Total	781.51	1,536.32	194,779	2.9658
Other expenditure -				
Legislature	5.55	46.75	5,927	9.4281
Administrative services	60.06	176.96	22,436	3.9463
Community services	9.05	105.07	13,321	12.6140
Regulatory services	6.71	64.42	8,167	10.6006
Services to industry	25.97	195.93	24,840	8.5445
Natural disasters	0.48	-0.48	- 60	-
Items n.e.i.	-0.19	-	-	-
Debt charges	29.55	149.80	18,992	6.0694
Total	137.18	738.45	93,623	6.3831
Business Undertakings -				
Non-metropolitan transport	58.10	-	-	1.0000
Metropolitan transit	65.77	-42.86	-5,433	0.1963
Water supply and sewerage	7.69(c)	115.76	14,677	(b)
Irrigation and drainage	14.04	-14.04	-1,781	-
Total	145.61	58.86	7,463	(b)
Total assessed needs		2,433.58	308,537	
Less: Assessed needs met from other Commonwealth assistance		2,300.16	291,621	
Assessed special grant		133.42	16,900(d)	

Notes: (a) Average of New South Wales and Victoria = 1.0000.
(b) Not calculated.
(c) Country only.
(d) Rounded from $16,916,000.

Source: Derived from Commonwealth Grants Commission, Fourth Report 1983 on Special Assistance for the Northern Territory, op.cit., Tables 3-1, 4-1 to 4-7.

It will be seen from the table that, while the Territory's total assessed needs for 1981-82 were $308.5 million, an amount of $291.6 million had been received by way of differential amounts of other Commonweath assistance (tax sharing grants and certain specific purpose grants), leaving only $16.9 million to be provided as a special grant. Since the Territory had not received an advance grant in 1981-82 and did not seek one in 1983-84, this became the assessed special grant for 1983-84. Because it exceeded the amount of the additional assistance grant for that year ($10 million), the special grant and not the additional assistance grant became the amount payable.

It should be noted that the Memorandum of Understanding said that it was 'the intention of both parties that after some years, by which time the general level of the special grant to the Territory will have become established, arrangements will be made to discontinue the special grant (or to reduce it) by building an allowance (for the whole or part of the special grant) into the tax sharing entitlement' (Memorandum of Understanding, 7.)

Specific Purpose Payments

As noted earlier, the Memorandum of Understanding provided for specific purpose payments to be made to the territory on the same basis as those for the States. This meant seperating out specific purpose grants from the global allocations that had been made in 1977-78 and 1978-79 and recording them separately in 1978-79, and during that year and 1979-80 arrangements for the different kinds of specific purpose payments - programs, initial and future levels of assistance, terms and conditions - were agreed between the two Governments. The Memorandum identified 27 recurrent programs and six capital programs but indicated that there could be others.

The largest recurrent payments in 1979-80 were those for debt charges assistance, education, hospital running costs, Electricity Commission subsidy, bovine brucellosis and TB eradication and assistance for local government. The largest capital payments were for education, housing, roads, water resources assessment and Jabiru Township.

The local government tax sharing grant for 1979-80 was calculated as the per capita equivalent for the Territory of the States' local government entitlements for that year, applied to the Territory's population subject to local government. This was to be escalated in subsequent years in the same proportions as the States' entitlements. Because some existing payments to local government were analogous to State payments to their local authorities, the level of the Territory's local authorities continued to be eligible, on the same basis as those in the States, for Commonwealth payments to direct local authorities.

Special arrangements were made for assistance for Aborigines (which reflected the fact that Aboriginal affairs were to be a shared responsibility), for debt charges and for the Northern Territory Electricity Commission.

At the time of self-government the Territory had virtually no debt but, because it was henceforth to be provided with capital funds on terms and conditions analogous to State Loan Council programs, there was expected to be a rapid increase in debt charges during the early years of self-government. The Commonwealth therefore agreed to make specific purpose payments equal to the debt charges for a number of years. The Memorandum of Understanding provided that when the growth rate of debt charges had slowed down it might be agreed to replace the specific purpose grants by an appropriate addition to the general revenue grants.

The subsidy for the Electricity Commission was initially intended to cover the difference between operating costs and revenues at average Northern Queensland tariffs. Under new arrangements to operate for five years from 1982-83, the Commonwealth agreed to make a formula-based grant which would take into account fuel and general price increases as well as load growth. It also

agreed to provide $124 million in 1980-81 prices towards the cost of a coal-fired power station in Darwin, to replace and expand the capacity of the existing high-cost oil-fired plant.

In 1982-83 and 1983-84 the Commonwealth provided small grants to meet the Territory's administrative costs of setting up its own superannuation funds; until 1 January 1983 Territory public servants had contributed to the Commonwealth Superannuation Scheme. As noted above, the Commonwealth has also made payments in lieu of accrued recreation leave and furlough entitlements of officers who transferred from the Commonwealth to the Northern Territory Public Service.

The Memorandum of Undersntanding provided that the Commonwealth would negotiate a Housing Agreement so that welfare housing would be funded on the same basis as for the States under the Commonwealth-State Housing Agreement. Although the Territory, like the States, has recently had the right to nominate part of its capital program for welfare housing on concessional terms, there has been no incentive for it to do so while the commonwealth is assuming full responsibility for the Territory's debt charges.

In addition to participating in the general roads grants which have long been paud to the States by the Commonwealth, the Territory is receiving allocations under the Bicentennial Road Development Program.

The Commonwealth had previously agreed to finance the whole cost of constructing a standard guage railway from Alice Springs to Darwin, and route identification and preliminary planning were to be completed in 1983-84. However, following its electi in March 1983 the new Commonwealth Government decided to proveed only on the basis of a 60 per cent Commonwealth contribution with a 40 per cent Territory contribution. This arrangement was rejected by the Territory and the Commonwealth has established an independent inquiry to undertake an economic evaluation designed to determine the most cost -effective means of providing high-standard transport access to the Territory.

The principal forms of commonwealth specific purpose assistance to the Territory are listed separately in Table 3 below.

General Purpose Capital Funds

Although the Northern Territory could not become a member of the Loan Council because it was not a State, the Memorandum of Understanding provided for the Commonwealth to make General purpose funds available to the Territory on the same terms and conditions as for State Loan Council programs. The level of feneral purpose funds for 1979-80 was derived by deducting agreed specific purpose capital payments in that year from total capital assistance. One-third of the residual amount was then provided as a general purpose grant and the remainder as loans from the Commonwealth with the same rates of interest and repayment terms as for State loans. In subsequent years, the total general purpose capital assistance was increased in the same proportion as State Loan Council programs (excluding any special additions); one-third of the total continued to be provided as a capital grant.

Similar arrangements generally applied to semi-government and local borrowing. Along with State electricity authorities, the Northern Territory Electricity Commission was freed from Loan Council control as to the level, interest rates and terms and conditions of domestic loans for a trial period of three years from 1982-83. Although the total borrowing program of the larger Territory non- electricity authorities (those borrowing more than $1.8 million in a year) continued to be increased (within the Commonwealth's allocation) in the same proportion as the corresponding State authority program, from 1983-84 Territory authorities, like those in the States, ceased to the subject to Loan Council control as to interest rates, timing and terms and conditions of domestic borrowing. Borrowing by both the Electricity Commission and larger non-electricity authorities still required the approval of the Territory

Government. Smaller Territory authorities were able to borrow on the same basis as smaller State authorities.

Because it does not have access to alternative sources of capital funds to the same extent as the States, the Northern Territory probably suffers more from the Loan Council constraints which have been such a feature of Australian public finance during recent years. While it has the offsetting advantages of a relatively low public debt and the reimbursement of its interest costs by the Commonwealth, these are taken into account by the Grants Commission in its assessments and do not confer any net benefit in relation to the Territory's recurrent budget.

Details of the Territory's borrowing program and borrowing by Territory authorities in the years 1979-80 to 1983-84 are recorded in Table 3, along with those of all other Commonwealth general purpose or specific purpose payments to the Territory and its local authorities.

Conclusion

The financial arrangements which the Northern Territory Government negotiated with the Commonwealth, although parallel to those which govern Commonwealth-State financial relations, were more favourable than the latter in a number of important respects. These included: the rate of increase in tax sharing grants; the provision for additional assistance grants during the transitional period from 1979-80 to 1984-85; the Territory's continuing access to the Commonwealth Grants Commission; and the funding of a number of specific purpose programs exclusive to the Territory (such as the debt charges assistance, the subsidies to the Electricity Commission and the special programs for Aborigines).

To the extent that the Territory has received favoured financial treatment at the hands of the Commonwealth, however, this may reasonably be regarded as a reflection of the enormous problems which faced the Territory Government when it became responsible for providing and financing (although it should be noted that in 1979-80 the additional assistance grant was deducted from the agreed level of total revenue assistance in determining the level of the tax sharing grant in that year);

Table 3

COMMONWEALTH PAYMENTS TO THE NORTHERN TERRITORY AND BORROWING BY TERRITORY AUTHORITIES

$ million

	1979-80	1980-81	1981-82	1982-83	1983-84 (est.)
GENERAL PURPOSE REVENUE FUNDS					
Tax sharing grant	208.9	274.2	315.1	378.9	424.3
Identified health grant	-	-	26.1	23.5	25.3
Additional assistance grant	20.0	20.0	20.0	15.0	-
Special grant	-	-	-	-	16.9
Other	-	0.9	2.7	4.2	3.9
Total	228.9	295.1	363.8	421.7	470.4
GENERAL PURPOSE CAPITAL FUNDS					
Borrowing (from Commonwealth)	71.6	76.6	76.6	80.4	86.0
Capital grants	35.8	38.3	38.3	40.2	43.0
Total	107.4	114.9	114.9	120.6	129.1
Total general purpose funds	336.3	410.0	478.7	542.3	599.5
SPECIFIC PURPOSE PAYMENTS - RECURRENT					
Debt charges assistance	1.6	12.4	21.8	31.1	54.5
Education	7.7	9.4	11.5	14.1	16.9
Public hospitals/Medicare	19.9	23.3	1.6	-	2.1
N.T.E.C. assistance	30.0	43.0	45.7	57.8	64.7
Other	4.0	4.8	4.4	9.1	21.5
Total	63.2	92.9	85.0	112.1	159.7
SPECIFIC PURPOSE PAYMENTS - CAPITAL					
Education	4.2	4.9	7.7	7.1	7.4
Housing	14.8	14.5	15.0	20.2	28.7
Roads	19.0	21.1	23.0	30.9	36.0
Other	3.6	11.0	14.3	9.9	16.0
Total	41.6	51.5	60.0	68.1	88.1
Total specific purpose payments	104.7	144.5	144.7	180.2	247.9
Total payments	441.0	554.4	623.4	722.5	847.3
PAYMENTS DIRECT TO LOCAL AUTHORITIES	0.3	0.2	0.3	0.5	1.1
BORROWING BY AUTHORITIES					
N.T.E.C.	22.3	15.8	9.6	23.4	15.7
Non-electricity authorities	9.6	10.2	16.4	7.0	10.0
Smaller authorities	1.2	0.8	1.3	1.8	3.1
Total	33.0	26.8	27.3	32.2	28.8

Source: Payments to or for the States, the Northern Territory and Local Government Authorities 1983-84, op.cit., Table 49.

the whole range of State-type services as well as many local government services. The Territory's fiscal problems have been directly attributable to: an unusual combination of a small, young and widely dispersed population containing a large minority group with special, long-neglected and very expensive needs; a vast land area with wide climatic variations and relatively poor internal communications; physical isolation from the rest of Australia with all the social, economic and financial disabilities that flow from that isolation; a retarded level of social, community and economic developmetn which has reflected not only a long period of stagnation but also the devastation of Darwin in the 1974 cyclone.

There have inevitably been disagreements and disappointments for the Territory in its financial relations with the Commonwealth, such as those relating to the exercise of the Commonwealth's reserved powers , the proposed university and the still unsettled question of the Northern Territory railway. Despite these, the financial arrangements which were agreed upon in the Memorandum of Understanding seem to have worked well and to have contributed positively to the impressive achievements which have marked the Territory's first few years of self-government.

In future years, the financial relationships between the Commonwealth and the Territory will no doubt move closer to the normal Commonwealth-State pattern. Provided adequate provision is made for the systematic and impartial evaluation of the Territory's special needs, however, it will be able to participate confidently and on a basis of equality with the States in the various forms of financial arrangements which have been described in this paper.

Footnotes

1. Until 1980-81, personal income tax collections in the previous year were used as the shared revenue base, the States' share being 39.87 per cent (although guarantee arrangements applied from 1976-77 to 1980-81 which had the effect of increasing the amounts paid to individual States above their tax sharing entitlements). The total amount of tax sharing grants in 1981-82 was arbitrarily determined by the Commonwealth.

2. The Commonwealth's powers with respect to the Territory are derived from section 122 of the Constitution, which provides that the Parliament 'may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth...'. The Northern Territory was formally transferred by South Australia to the Commonwealth on 1 January 1911.

3. Memorandum of Understanding in Respect of Financial Arrangements Between the Commonwealth and a Self-Governing Northern Territory, reproduced in Commonwealth Grants Commission, First Report 1979 on Special Assistance for the Northern Territory, A.G.P.S., Canberra 1979, Appendix A.

4. Commonwealth Grants Commission, Fourth Report 1983 on Special Assistance for the Northern Territory, A.G.P.S., Canberra, 1983.

5. The Commission's preferred approach for business undertakings has, however, always involved the use of what it calls the modified budgetary impact method, whereby it uses the per capita differences in the undertakings' budgetary results as the starting point and makes modifications for differences in such policy variables as fares or other charges, wage rates or other cost elements, standards of service and operating efficiency.

6. Commonwealth Grants Commission, Third Report 1982 on Special Assistance for the Northern Territory, A.G.P.S., Canberra, 1982.

IMPACT MEASUREMENT IN NORTHERN TERRITORY ECONOMIC DEVELOPMENT

T.J. MULES

In planning for economic development, governments are faced with numerous tasks , one of which is the subject of this paper, namely the quantifying of economic impacts of specific development projects. A popular approach to measuring the economic impacts of development projects in Australia in recent years has been the regional input-output model. This model provides estimates of the impacts on a regional economy in terms of the multiplier effects of the development project. The multiplier effects are measured for three economic variables, namely output, income and employment and are disaggregated according to the industry or sector of the economy that is affected. In addition, a disaggregation of multiplier effects is often made according to whether they arise from the economic linkages between industries (production induced effect) or whether they come about as a result of the household expenditure - household income linkage (consumption induced effect).

Input-output studies have been carried out to measure the economic impacts of a number of Northern Territory development projects. These studies, some of which are listed at the end of the paper, have generally indicated that the consumption induced effects are significantly more important than the production induced effects. Associated with this is the result that the employment effects are often quite large in the tertiary sectors of the economy, most notably the wholesale and retail trade sector. The implication of these findings for Northern Territory economic development is that emphasis perhaps should be placed on providing a supporting infrastructure of tertiary [1] industries rather than on providing an interconnected manufacturing base.

The aim of this paper is to provide a critical appraisal of the above conclusion. This is done by concentrating attention on each of the two findings that lead to the conclusion, i.e., that (i) consumption induced effects are of dominant importance and (ii) employment impacts are significantly larger in tertiary industries than in other sectors of the economy.

Consumption Induced Effects

The importance of consumption induced (CI) effects relative to production induced (PI) effects can be looked at by measuring the percentage of each in the total multiplier, or by measuring the percentage of each in the flow-on part of the multiplier. This is best explained by use of a simple example.

Suppose a consumption project in the Northern Territory involves expenditure of $10 m. The construction sector output multiplier for the Northern Territory is 1.541 (based on the 1976-77 input-output tables) which means that total output generated in the Northern Territory would be $10 m. x 1.541 = $15.41 m. Of this $15.41 m., the initial $10 m. is termed the initial impact, the remaining $5.41 m. is called the flow-on and measures the extent to which impacts of the initial expenditure flow-on to other industries in the economy. Of the $5.41 m. of flow-on, $2.70 m. is a PI effect and $2.71 m. is a CI effect.

Thus the relative importance of the PI and CI effects may be calculated by either (i) expressing them as a percentage of the total multiplier, i.e., PI = 2.70/15.41, CI = 2.71/15.41; or (ii) expressing them as a percentage of the flow-on only, i.e., PI = 2.70/5.41, CI = 2.71/5.41. My view is that the latter approach is preferable, since it is the flow-on that is of importance when measuring the impacts of a project on the whole economy. However, it is not really necessary to opt for one or the other since the same general picture emerges whichever measure is chosen, and so in this paper, both measures are given.

A further point to note is that the above example discussed the relative importance of PI and CI effects only in terms of output. It is also possible to

use the input-output tables to measure the importance of these effects in terms of income and employment. Table 1 below continues the above example of a $10 m. investment in a construction project and shows the Pi and CI effects as a percentage of both the total multiplier and of the flow-on for all of output, income and employment. The table shows that for output, the PI and Cl effects are equal but that for income and employment, the CI effects are significantly greater than the PI effects. The reason for the difference is that the Cl effects are largest in those sectors of the economy which have the greatest tendency to create income and employment, i.e., those that are relatively labour intensive. The breakdown by sector of these effects suggests that about 87 per cent occurs in private industry with the remaining 13 per cent being attributable to the public sector in one form or another.

The pattern of effects shown in table 1 for the construction sector are typical of the Northern Territory as a whole. Table 2 shows the same effects averaged over all sixteen sectors classified in the Northern Territory input-output tables. Clearly, the greater importance of the CI effects is more marked for income and employment than it is for output, the difference being for the same reasons as discussed above for the construction sector. Since employment is an important policy variable, the relative superiority of the Cl effects makes further examination of this point a worthwhile endeavour.

The first thing to notice is that the relative importance of the CI effects have been remarked on by other writers in other contexts. It was noted by the present author (Mules 1981) in the context of the timing of input-ouput multiplier effects and by Hewings, Merrifield and Schneider (1979) in the context of economic growth. Jensen and West (1982) compared the PI and Cl effects in 29 input-output tables for different States and regions in Australia. Their findings, which are summarised in table 3, reinforced the view that the Ci effects are significantly greater than the PI effects, in their case for all three economic variables.

Secondly, it should be noted that the Northern Territory input-output tables, and all 29 tables used by Jensen and West were estimated by applying a technique known as GRIT (2) to the 1974-75 Australian input-output tables. Thus the tables all have a common data base and cannot really be regarded as truly independent observations. The conclusions regarding the relative importance of CI effects may be as much a reflection of the data base and the GRIT technique as of any underlying economic structure.

TABLE 1

Production Induced and Consumption Induced Effects for the Northern Territory Construction Sector, 1976-77

	As a Percentage of Total Multiplier		As a Percentage of Flow-on	
Economic Variable	Production Induced	Consumption Induced	Production Induced	Consumption Induced
Output	17.5	17.6	49.9	50.1
Income	12.3	22.1	35.7	64.3
Employment	17.4	28.3	38.1	61.9

TABLE 2

Average Importance of Production Induced and Consumption Induced Effects, Northern Territory, 1976-77

Economic Variable	As a Percentage of Total Multiplier		As a Percentage of Flow-on	
	Production Induced	Consumption Induced	Production Induced	Consumption Induced
Output	15.5	16.8	47.3	52.7
Income	16.0	22.2	39.2	60.8
Employment	18.2	23.6	42.1	57.9

In an attempt to assess the general applicability of the conclusions, an attempt was made to measure the importance of the CI effects in some truly independently estimated input-output tables. This proved somewhat difficult because the widespread popularity of GRIT in Australia has meant that independent tables are difficult to obtain(3). However, independently derived tables for Tasmania (Edwards, et al., 1981) and for South Australia (Butterfield 1979) were available and summary measures are provided in tables 4 and 5 of the relative importance of PI and CI effects in these two States.

TABLE 3

The Average Importance of Production Induced and Consumption Induced Effects Over 29 Input-Output Tables

Economic Variable	As a Percentage of Total Multiplier		As a percentage of Flow-on	
	Production Induced	Consumption Induced	Production Induced	Consumption Induced
Output	14.8	23.2	38.9	61.1
Income	12.7	22.6	36.0	64.0
Employment	12.0	22.0	35.3	64.7

Source: Jensen and West 1982, Table 6.

The finding of this comparison is that in every case, the CI effect significantly exceeds the PI effect. This appears to provide independent support for the proposition that has already been advanced as a general result. It also suggests that this proposition, in so far as the Northern Territory is concerned, is not just a result of the data base and GRIT estimation technique, but is probably a feature of the Northern Territory economy.

What are the implications of the apparent validity of the propositions? Jensen and West point out that the traditional emphasis of input-output analysis is obviously misplaced and that rather than model production linkages in detail, attention should be turned to the household consumption - household income linkages. In their words, 'local purchases by firms of inputs appears to be considerably less important than the economic effects of purchases by their employees'.

TABLE 4

Average Importance of Production Induced and Consumption Induced Effects, Tasmania, 1977-78

Economic Variable	As a Percentage of Total Multiplier		As a Percentage of Flow-on	
	Production Induced	Consumption Induced	Production Induced	Consumption Induced
Output	21.3	31.9	39.5	60.5
Income	21.8	32.0	41.5	58.5
Employment	24.1	36.1	37.5	62.5

Source: Edwards, et al., 1981.

TABLE 5

Average Importance of Production Induced and Consumption Induced Effects, South Australia, 1973-74

Economic Variable	As a percentage of Total Multiplier		As a Percentage of Flow-on	
	Production Induced	Consumption Induced	Production Induced	Consumption Induced
Output	24.9	33.4	43.0	57.0
Income	25.4	36.8	38.6	61.4
Employment	23.7	35.3	39.0	61.0

Source: Butterfield 1979.

The implications for regional economic development, and in particular, for Northern Territory economic development are that development in the North will be accentuated the more the North can capture these CI effects. From a policy point of view, this means placing emphasis on encouraging industries which traditionally supply consumption goods and services rather than industries which supply inputs to other industries.

This is not to suggest that economic growth will occur simply by providing consumption goods. Clearly, it is necessary to have some exogenously stimulated investment in order to get the system started, e.g., major construction projects mining and mineral processing, processing of agricultural output for export etc. However, given the initial, exogenous event, to place emphasis on providing industrial support for the exogenous activity will not capture as great an economic impact as will be obtained by emphasising the provision of goods and services for the employees of the exogenous activity.

This implies that once the initial stimulus has occurred, perhaps as a result of government policy, if the next step of policy is aimed at industrialisation and the establishment of linked manufacturing industries, that second step is misguided. Greater economic benefits would be obtained in the regional economy by concentrating attention on consumption related goods and services. This is not to say that industrially linked industries should be ignored, but it does suggest that the emphasis should be re-aligned in favour of the household consumption related industries.

However, it may be argued that from the point of view of a regional economy such as the Northern Territory, many consumer goods and services are not 'importable' and the profit motive of commercial firms will generally ensure that the provision of such goods and services will occur locally without any policy action being required. Examples of sectors of the economy in this category are retailing, banking, finance, transport, building and construction, community services and entertainment. These activities are all likely to follow the population into an area because of the commercial opportunities that such a population presents and direct Government encouragement is not necessary.

If this 'leave it to the market' argument holds for consumption goods, it should also apply for production goods. That is, given an initial exogenous 'driving' stimulus, private firms should see the commercial opportunities available by moving to supply production goods to the initial project. For example, a construction project will require cement, glass, steel, plastic and ceramic building components. Firms which manufacture such items should be attracted to the region by market forces just as a retailing firm or a bank is attracted. However, there is an important difference between consumption goods and production goods which negates this argument in the latter case. The essential difference is that a large part of the requirement for production goods is importable into the Northern Territory from southern plants and requires only a minimal level of activity in the Territory. On the other hand, consumption activities, particularly services such as retailing, banking, entertainment require a full level of local involvement by firms.

Hence, while on the face of the evidence presented from the input-output studies, a government policy aimed at encouraging an industrially linked infrastructure would appear to be misplaced, the realities of the commerical world may mean that such a policy is correct. The CI effects are already being captured regionally because of market forces and positive action is necessary in terms of encouraging import replacement for production goods.

Tertiary Sector Employment Generation

It was noted in the previous section that in the Northern Territory, the extent to which CI effects exceed PI effects was more marked for income and employment than it was for output. This difference was due to the fact that Cl effects tend to be concentrated in sectors of the economy which are labour intensive and therefore create more jobs and more household income than the more evenly spread PI effects. An examination of the Northern Territory's input-output tables show that these effects are largest in sectors of the economy that would be classified as tertiary.

Some 53 per cent of household consumption spending in the Northern Territory is on imported goods and services from outside the Territory. Of the remaining 47 per cent which finds its way to local industries, 41 per cent is on the output of the sectors Trade (retail and wholesale), Finance, Transport and Communication, Public Administration, Community Services and Entertainment. Thus some 87 per cent (41/47) of household consumption expenditure on local industries is in fact on the output of tertiary sectors. These sectors account for just on 70 per cent of total employment in the Northern Territory so it is not surprising that the input-output analysis shows large CI effects for employment and for household income.

The validity of these effects as a reflection of the structure of the local economy depends upon the applicability of two important assumptions that are

made in the input-output model. The first of these assumptions relates to the household income-household consumption linkage. The input-output model, as it has been used in this context, assumes that each extra $1 of household income is spent entirely on consumption and is allocated over industries in the same proportion as the average allocation. In the language of economics, this assumes that the marginal propensity to consume is unity, as is the average propensity to consume.

The second critical assumption relates to estimating employment effects. The model assumes that for each sector, employment expands in direct proportion to increases in output, the proportion being the average employment/output ratio for the sector. For example, if a sector's output is $12 m. and its employment is 300 persons, its average employment/output ration is 300/12m. or 0.025 persons per $1,000 of output. The model assumes that every $1,000 increase in output results in creation of 0.025 jobs.

The above two assumptions are subject to the same general citicism, namely that changes at the margin are likely to be less than the average [4]. Therefore, it could be argued that by using the average propensity to consume and the average employment/output ratio, the input-output approach has overstated the importance of CI effects and in particular has overstated the effects on income and employment in the tertiary sectors of the economy.

The literature on household consumption behaviour provides some insights into the validity of the first of these critical assumptions. In particular, Freebairn (1977) contains a thorough review of the evidence on household consumption behaviour. His conclusion is that the short run (one year) marginal propensity to consume lies between 0.4 and 0.6 while the long run propensity is equal to the average propensity at 0.9. Thus the input-output model is essentially modelling the long run response of household consumption expenditure and is overstating the short run effects [5].

The second assumption is more difficult to evaluate. Very little research has been done into the economics of the tertiary sectors in Australia and the Australian Bureau of Statisitics does not provide a lot of statistical data on the industries involved. However, one such industry for which some data is available is the Retail Trade sector. In the Northern Territory input-output Tables, Retail Trade and Wholesale Trade are aggregated into one sector called Trade. The employment/output ratio for this sector is the third highest of all the Northern Territory sectors and is the highest of the tertiary sectors, which is where the household consumption effects tend to be concentrated. In view of the obvious strategic importance of this sector and of the lack of data on the tertiary sectors, it was decided to concentrate attention in this paper on the Trade sector.

A comparison of the employment/output ratio for the Trade sector in a number of input-output studies around Australia is contained in table 6. The Northern Territory ratio stands out as being one of the highest, especially in relation to the Tasmanian ratio which relates to a similar size economy.

TABLE 6

Comparison of Employment/Output Ratios for the Trade Sector

Australian Input-Output Tables

Input-Output Table	Employment/Output Ratio
Northern Territory (GRIT, 1976-77)	Ø.Ø73
South Australia (GRIT, 1976-77)	Ø.Ø58
South Australia (Butterfield, 1973-74)	Ø.Ø68
Queensland (GRIT, 1973-74)	Ø.126
Queensland (GRIT, 1978-79)	Ø.Ø47
Victoria (GRIT, 1976-77)	Ø.Ø75
Tasmania, Retail Trade (Edwards, 1977-78)	Ø.Ø64
Tasmania, Wholesale Trade (Edwards, 1977-78)	Ø.Ø55
Australia (Australian Bureau of Statistics, 1977-78)	Ø.Ø54

Not surprisingly, users of Northern Territory input-output tables have sometimes expressed concern at the unusually large employment effects that are often shown in the Trade sector in an impact study. It was decided to assess whether or not the assumption of an extra Ø.Ø73 employees for every $1,ØØØ of output in the Trade sector in the Northern Territory could be empirically justified.

Unfortunately, data for the wholesale area were not available in a suitable form. The last available wholesale data for the Northern Territory was for 1968-69 and this was considered to be too old to be relevant. However, the Retail Census of 1979-8Ø provided details of retailing in the Northern Territory classified according to size of operation. The Census gave employment, value added, turnover and number of establishments according to eight size categories for turnover. For each size category the average employment per establishment, and average output (value added) per establishment was calculated. Changes in employment per establishment and output per establishment between adjacent class sizes were then regarded as marginal changes in employment and marginal changes in output respectively.

The above calculations resulted in seven marginal employment/output ratios. These were averaged over the seven classes and corrected for price changes to provide an estimate of the marginal employment/output ratio for retail trade for the Northern Territory in 1976-77. This figure was Ø.Ø678 which compares to the figure of Ø.Ø73117 which was used in the original input-output tables. Since the figure of Ø.Ø678 relates to retail trade only, it is probably an overestimate of the ratio for the Trade sector as a whole, since wholesaling is typically less labour intensive than retailing. The absence of any usable data on wholesale trade meant that the figure of Ø.Ø678 had to be used as the best estimate of the marginal employment output ratio in the Northern Territory Trade sector.

Clearly, this figure is not much lower than the original and is still larger than many of the employment/output ratios shown in table 6. One reason for this may be that the Northern Territory economy is small and widely spread, thereby making it difficult for firms in the Trade Sector to achieve economies of size. It will be interesting to see whether subsequent growth of the Territory's economy and the consequent updating of the input-output model has any significant impact on the labour intensity of the Trade sector.

In order to assess whether the marginal figure of Ø.Ø678 has any implications for the mulipliers, the latter were recalculated by using Ø.Ø678 instead of Ø.Ø73117 for the employment/output ratio in the Trade sector. A similar proportional adjustment was made to the household income coefficient in the sector. The original and recalculated multipliers for the Trade sector are shown in table 7. As expected, the recalculated multipliers are smaller, but the differences are not great enough to suggest that the original figures are significantly in error. The same conclusion applies from an examination of the relative size of the PI and CI effects in the recalculated multipliers (table 8). A comparison of table 2 with table 8 shows that the reclaculation causes very little change to the relative size of these effects.

In summing up this section it must be concluded that the available evidence does not refute the usual input-output assumptions. In particular, the assumption that the marginal propensity to consume equals one appears to be supportable for time periods of greater than one year; and the assumption of a constant ratio between output and employment being maintained at the margin is supportable for the critical retail trade sector. Further research is needed before any conclusions can be reached about the applicability of this lattr assumption to other tertiary sectors.

TABLE 7

Comparison of Original and Recalculated Multipliers For the Trade Sector in the Northern Territory

Type of Multiplier	Original	Recalculated
Output	1.543	1.519
Income	Ø.598	Ø.554
Employment	Ø.1Ø2	Ø.Ø94

TABLE 8

Average Importance of Recalculated Production Induced and Consumption Induced Effects, Northern Territory, 1976-77

Economic Variable	As a Percentage of Total Multiplier		As a Percentage of Flow-on	
	Production Induced	Consumption Induced	Production Induced	Consumption Induced
Output	15.8	16.6	47.9	52.1
Income	16.Ø	21.6	39.5	6Ø.5
Employment	18.2	23.6	42.1	57.9

General Conclusions

This paper has been motivated by the observation of two general patterns that have emerged from various Northern Territory input-output analyses. These patterns are that (i) household consumption expenditure is more important than firm's purchases of inputs in providing economic growth, and (ii) employment impacts resulting from such expenditure are concentrated in the tertiary sectors. The paper set out to establish whether these results were a peculiarity of the input-output model, its assumptions and data, or whether they were genuine features of the Northern Territory economy. The evidence presented in the paper, while not conclusive or exhaustive, did suggest that the results were independently supportable by the data and other research.

In other words, the above patterns appeared to be characteristics of the Northern Territory economy and were not strange anomalies which derived from the model or its data. If this conclusion is accepted, what policy implications flow therefrom? It has been suggested above, that one implication is that policy makers should attempt to ensure that the maximum benefits from household consumption are captured locally rather than spilling over to imports (whether from overseas or elsewhere in Australia). Some arguments were advanced to the effect that normal realities of the world of commerce would ensure that this would be automatically achieved for tertiary sectors at least. Since the benefits were greatest in these sectors, no direct policy action may be necessary once an initial exogenous investment is under way.

While the above may be true for tertiary sectors, for manufactured goods a positive policy of import replacement may be necessary in order to capture more of the multiplier effects locally. The input-output results suggest that greater benefits may be obtained by concentrating import replacement efforts on consumer goods rather than producer goods, since the consumption induced effects are relatively greater than the production induced effects. Hence, a policy aimed exclusively at encouraging local manufacture of producer goods may well be misguided and greater local economic benefit may result from encouraging the local manufacture of consumer goods.

A full study of the feasibility and benefits of various kinds of import replacement is beyond the scope of this paper. However, the indications from this paper are that such a study is necessary in order to develop a proper industrial policy for the Northern Territory.

Footnotes

1. The word "tertiary" in this paper is defined to mean all industries supplying services rather than tangible goods. Examples are retailing, banking, entertainment, transport, public administration.

2. GRIT stands for Generation of Regional Input-Output Tables. Details of the technique may be found in numerous sources, e.g., Jensen, Mandeville and Karunaratne [1979].

3. Overseas tables were ruled out because of the difficulty of obtaining them in a form comparable with the GRIT system of multiplier classification.

4. In other words, the marginal propensity to consume is likely to be less than the average propensity to consume. Also, the marginal increment in labour needed to produce a given increase in output will be less than the average employment/output ratio if firms are still operating in the downward sloping region of their long run average cost curves.

5. This conclusion assumes that Northern Territory households exhibit the same consumption behaviour as Australian households generally. This assumption cannot be tested empirically at this stage, and the casual observer of Territory habits may well be moved to doubt it.

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The above studies were carried out by the present author. A number of other input-output studies have been carried out internally by the Northern Territory Department of the Chief Minister.

PUBLIC SECTOR IN THE NT ECONOMY

P.J. CALDWELL

Most people today will already have some understanding of the role of the public sector in the NT. However, just to set the scene, it is worth mentioning that the public sector, broadly defined, employed nearly 40 per cent of all workers in 1981, particularly through the NT Public Service. If we had comprehensive product statistics, I'm sure the public sector would still be the largest single industry.

Background

Why is this so? Superficially, many may see it as an unfortunate turn of history, and suggest eliminating many surplus workers and scaling the public sector down. But a closer look gives a better answer.

Through the course of European settlement until 1978, the Territory has been a remote and insignificant adjunct to a southern government. Understandably, any government far from the scene has had little interest in the few people and the limited known resources of the NT.

Compared with the States, this has left the Territory with little of the infrastructure necessary for sustained eoconomic development. Even the developments which have occured have been often enclaves, not physically or economically linked with the rest of the Territory to any significant degree. By the term infrastructure in this connection I include basic knowledge; it really isn't fortuitious that the recent oil find at Jabiru occurred at this time - rather, it is one of many possible illustrations that the Territory remains one of the least known areas of the world.

Government Objectives in the Economy

In the economic context, the NT public sector has two basic objectives:

1. To build up our basic infrastructure to the standards enjoyed elsewhere in Australia and by extension, to meet the imperatives of our continuing growth, and
2. To assist and direct the economy towards the realization of our development potential, so that the private sector can take over as the engine of growth.

In essence, all public sector expenditure and effort can be seen as being directed toward these objectives, within priorities determined by the Government of the day.

It is worth pointing out, at this juncture, that the critics who say that government expenditure, particularly capital expenditure, is not economically justified at present levels when viewed simply through a snapshot in time are correct. However, such a view would arguably never have seen Australia settled by the British, nor have seen such growth over the past almost 200 years. It is the NT public sector's task to set the stage for sustained economic growth in future. Only by such means will the perceived cost to the nation be converted into positive returns.

1. Basic Standards of Infrastructure

For the purposes of this paper, I'll divide this responsibility into three parts:

(a) physical infrastructure
(b) Social Infrastructure
(c) knowledge and data

(a) Physical Infrastructure

With one sixth of Australia's land area, it is not surprising that NT should have nearly as many road kilometers (outside of urban areas) as has Victoria - particularly since we don't have a basic railway system. Probably, we are better served in this area than in relation to other physical infrastructure. Yet even for roads, we are behind the mark, with no formed road linking our third biggest town with the rest of the road system.

In relation to our only public port of any size, Darwin, the Government has had to embark on a major upgrading program just to bring it to the minimum standards demanded by modern shipping. We've built or have on order, a roll-on roll-off facility, a container crane, and a land backed wharf. These basic facilities have involved government subvention of over $10M in the last few years, with still more required.

In telecommunications, the NT still has a very long way to go. Just recently, our second telephone link with the rest of Australia was commissioned by Telecom. And we still have a higher proportion of our residents lacking basic telecommunications than any state.

A further illustration of the pursuit of our physical infrastructure responsibilities is our biggest current project, the coal fired power station. This will, of course, meet the needs of growth well into next century. The fact that we are only now changing the energy source is an illustration of the lack of basic infrastructure in this part of the world. No State generates all its electricity from just one fuel, as we did until a few weeks ago when Alice Springs power station began to convert to natural gas.

Land development is a particularly interesting illustration of the public sector role in economic development. On attaining self-government, one of the first actions of the new Territory Government was to convert leasehold land in urban centres (ie virtually all urban land) into freehold. The thrust was that this would provide the legal title demanded by the private sector if it was to take over the land development role historically performed by a succession of administrations in the NT, but elsewhere in Australia (except ACT) not a government function except in a very marginal sense.

And indeed, it is working. In Darwin and Alice Springs, our two biggest cities, land development is no longer restricted to government. Government merely provides the essential trunk services, and developers then take over, as they would elsewhere in Australia. This is an early example of a fundamental objective, to move from big government towards the point where the dynamics of growth are in the hands of the private sector. And where we perform only that diminishing range of functions which, in part because of small scale, cannot efficiently be performed by private citizens.

Such basic infrastructures are an essential prerequisite to continuing and sustained growth in the NT economy, leaving aside the growth implications of public sector expenditure itself.

(b) Social Infrastructure

Social infrastructure is similarly essential, even if the link to sustained economic growth is less evident. As an aside, the cost of providing the social infrastructure is very high if comparisons are drawn with the States. There are special problems in the provision of ordinary Government services that have been highlighted in our annual submissions to the Grants Commission, as an independent arbiter on the adequacy of recurrent payments from the Commonwealth. The end result of these particular circumstances is that services on average cost about 3 times as much per capita to provide as those in the States.

In this connection, the Government's purpose can be summed up in one phrase - a skilled, healthy, safe, harmonious and sufficient work force for development.

To this end, the Government has directed its efforts into education, hospitals, industrial safety, industrial relations, and indeed, housing. To expand on this -

education and training have been important government priorities, not just at the schools level but through technical, further and tertiary courses. Whilst the university still seems a way off, the two Community Colleges already offer a very broad range of disciplines, and more are being added each year.

The Territory's only large hospital was opened only a couple of years ago, and its first private mursing home, last year. These will suffice for a time as basic urban infrastructure, so our expenditures in future will be turned toward meeting growth needs and the health needs of the disadvantaged closer to their homes. Of course we still face the difficulty in providing full specialist staffing and only growth will provide a real justification for overcoming this.

It may seem at first sight inappropriate to emphasise housing here, but there is a reason. In these early years, there is a need to see the provision of adequate housing at reasonable cost as a way in which a stable base of skilled workers can be attracted to and retained in the Territory. It should be noted that only 30 per cent of Territorians are owner-occupiers, compared with 68 per cent of Australians generally. A stable population carries with it significant social benefits with clear savings in welfare expenditure.

So, in the Territory the Housing Commission dominates the housing market, in marked contrast to the housing commissions of the states. The NTHC remains the main builder of houses in the NT, building 40 per cent of all houses and owning 20 per cent of the housing stock. It is also the main financier, providing 78 per cent of housing finance.

The results of such activity are that the public sector is in a position to provide rental housing at roughly one third of market rents, and to offer would-be home owners repayment terms which, despite high costs in the NT, are not unreasonable by interstate standards.

But, to re-emphasise the point, the objective is that this situation be a temporary measure. As soon as the private sector develops its ability to offer sufficient housing on reasonable terms, the NTHC will scale down its operations to the usual state like welfare role, in line with practice elsewhere in Australia. On present indications, this may take some few years yet.

Whether properly classified as physical or social infrastructure, there is another area of significant public sector activity which is legislation. The Territory, although the smallest legal jurisdiction in Australia, has one of the largest legislative programs. Laws of the Commonwealth, and in many cases, of South Australia from more than 70 years ago, are being progressively replaced with modern and appropriate laws which do not unnecessarily inhibit economic development generally and help set the social framework for a successful and safe society.

(c) Knowledge and Data

Basic knowledge can be considered in a sense as a type of infrastructure. One of the problems confronting any entrepreneur wanting to do business in the Territory is the lack of basic knowledge of the environment. We lack many of the statistical series available in all States; the Territory has never been fully mapped in detail; our geographical survey programme has, even at its present quite fast pace, many years to run before we reach standard; we know little of Territory soils; our climate records are scanty; farming experience is limited; knowledge of our fishery is scanty. All these are areas in which an entrepeneur in say NSW would be able to get voluminous studies and reports,

reflecting a century or more of knowledge, just for the asking in the appropriate government department. And while government information is never sufficient to ensure commerical success, it obviously is an invaluable start.

Economic Priorities and the Public Sector's Pole

The previous section covers what I call the public sector's reactive response to Territory economic imperatives. I now turn to the way the Government has set public sector priorities in recent times in seeking to influence the economy so that there can be solid development of the economic potential of the economy.

In terms of the factor endowments of the Territory, the Government is concerned to foster appropriate sectors which it sees as having the potential for take off into sustained growth. Such growth will enable the broadening of the economic base so that the public sector, whilst perhaps continuing to expand a little, becomes an even smaller part of the economy until it has a no larger share than elsewhere in Australia.

The policy instruments which the Government uses to foster potential growth industries are:

(i) Grants. These are used to a very limited extent to encourage new ideas and enterprises. For example, the Government has assisted the development and testing of a solar pond near Alice Springs, in the hope that his new technology will provide an economic way for supplying power to small remote communities. Basic studies of potentially important industry investment opportunities have also been funded through grants.

(ii) Loans. Through the Development Corporation mainly, the Government lends money to establish or develop new businesses which cannot obtain finance on acceptable terms from private financial intermediaries. Industries receiving priority include tourism and fishing.

(iii) Guarantees. Increasingly, the public sector is providing guarantees to enable entrepreneurs to finance projects with good potential but not seen by financial intermediaries as meeting their credit guidelines. To date, the main guarantees have been in relation to the Yulara Tourist Resort, and transport related services.

(iv) Advice. The small Business Advisory Service of NT Development Corporation and the Department of Primary Production both have major roles in the provision of advice to new and existing ventures. Other public authorities are also active in this field.

(v) Discretionary element in the Budget. There is, of course, no clear-cut distinction between expenditure on basic infrastructure to overcome backlogs, to meet growth needs and to encourage priority development of favoured industries. However, notionally the Government has been concerned to direct its expenditure at the margin towards those areas most likely to encourage future growth. For example, the expenditure on Darwin Port referred to above is not merely to bring it up to standard as an Australian port. As well, it is part of the Government's strategy to promote Darwin as a port of entry for Australian trade with South East Asia. The north-south railway, if built, will be another aspect of this strategy.

(vi) Counter cyclical policy. Given the circumstances of the Territory, notably the high proportion of the Territory Budget which flows from the Commonwealth (around 85 per cent) the Government largely lacks the flexibility in funds to do much to influence the business cycle. However, within such constraints, it is an objective of the Territory, particularly in the timing of expenditures, to try to ameliorate the effects of recession.

Deferred financing through supplier credit facilities is an arrangement in common use throughout the private sector, and has had some exposure in financing government works in the States (New South Wales in particular). The Treasurer announced in his 1983/84 Budget Speech that an additional $33 million of capital works projects would be commenced this year through use of deferred financing.

Deferred payment contracts allow the public sector to significantly expand capital works projects over a short period to:

(i) maintain construction employment until such time as there is an improvement in the private sector;

(ii) stimulate the economy generally; and

(iii) accelerate the provision of facilities of benefit to the public and/or industry.

A continuation of this facility to finance projects in future years will maintain the momentum of construction activity in the Territory. The actual value of projects financed this way will be determined by the level of private sector construction activity, the Government's own capital works program and the need from time to time, to provide urgent additional facilities.

Potential Growth Areas

I now turn to where the public sector can do most in the future for economic growth. First, tourism. This will probably be the single largest source of future growth. At present, the Territory's third largest industry, it is strongly influenced by prevailing world economic circumstances. Nevertheless, it has grown very significantly over the last decade or so, and is worth around $100m to the economy. Apart from the Yulara Project, which will have an all up cost of $150m and will cater for up to 6,000 tourists per day, the Government is also fostering hotel development in Alice Springs and Darwin, and motels in other main centres. The Territory has some recognised natural wonders upon which it can capitalize through fostering tourism.

Fishing. The northern fishery is seen as having Australia's greatest, largely untapped potential. Much of the fishery is in NT waters, and moves are underway to develop this fishery to its sustainable catch both for the Australian market and for Asia, with the maximum Territory value added justifiable. Currently, our fishery resources are under intense study, as the fishery effort to date has been quite limited.

Primary production. Despite something of a history of failed farming ventures in the north of Australia, insufficient is known to enable full development of this sector. The public sector is involved in assisting agricultural, horticultural and pastoral enterprises to realize the Territory's potential. A large part of our assistance has the basic objective of gaining knowledge of the Territory's soils and climate etc. Given our limited domestic market, trade with Asia and southern Australia is essential if this sector is to grow as it should. Fortunately, to offset our fairly well known comparative disadvantages such as harsh climate, small local market and lack of farming knowledge, the Territory does have some important things going for it - our crops are 'out of season' in nearby Asia and in Southern Australia, we have a rapidly improving basic infrastructure, and we're part of a developed economy, whose technical expertise etc can be harnessed when needed.

The Future

To return to my theme. The public sector's role in the future is seen to be one where, as our economy develops, it will not grow to the same extent as the private sector, leading to a situation where the range of its activities and the profile of the government generally become much the same as in the States.

Postscript

During discussion of this paper, the question of mining was raised. In view of the fact that Government is already heavily involved in geographical survey work, and has already thoroughly reviewed and revised mining legislation in the Territory, I took the view that there was not much more the Government could do to foster mining in the NT. In any case, mining has limited multiplier effects, and it's doubtful that it can generate much employment or development. From a government viewpoint, mining's main value to the NT lies now, and likely over the next couple of decades, in the royalties it can generate.

Note: The views expressed in this paper are the author's, and do not necessarily represent those of the NT Government or Treasury.

THE TOURIST INDUSTRY OF CENTRAL AUSTRALIA:

A REGIONAL APPLICATION OF INPUT-OUTPUT ANALYSIS

M. PEARSE

As a source of final demand originating outside the region, tourism injects expenditure on output which creates employment and generates income by direct and multiplier effects. The tourist industry has become an important source of growth for the Central Australian economy since the establishment of the Ayers Rock National Park (now called Uluru) in 1958. This paper is based on a thesis evaluating the contribution of the tourist industry to the region's economic structure in 1979-80 and its potential contribution in 1987-88.

Methodology

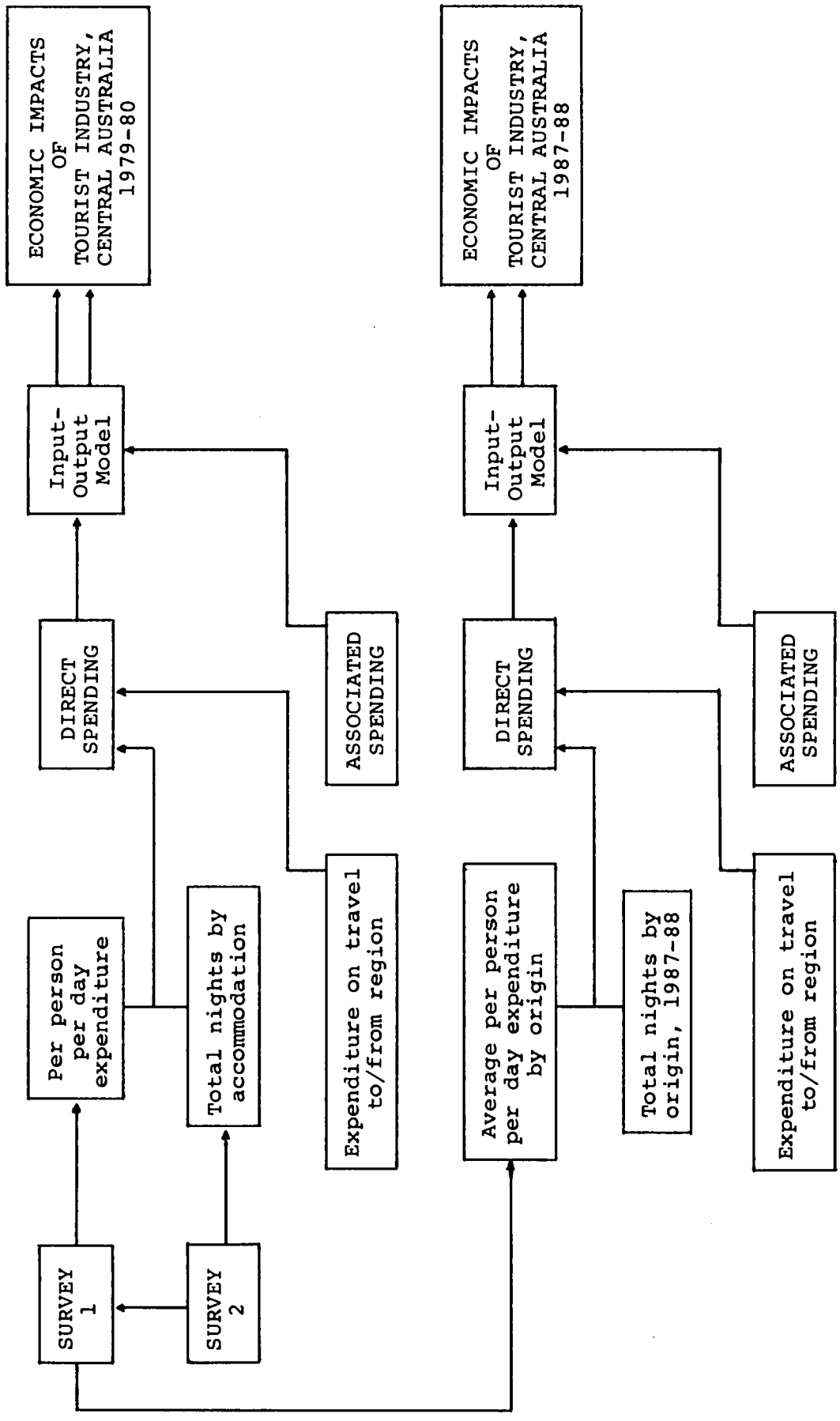
Estimation of the regional economic impact of the tourist industry required assessment of spending on the output of the regional economy directly by tourists and by others associated with the industry during each period and the measurement of the impacts of that expenditure using a multiplier model of the region. The time period April 1979 to March 1980 was selected because detailed estimates of travel behaviour in Australia of overseas and domestic visitors became available for that period (ATC 1980; ASCOT 1980).

Patterns of per person per day expenditure by tourists on goods and services while in the region were estimated from data gathered by survey for market segments found to be significant in that survey. The number of nights spent in the region by visitors in each market segment was estimated from survey results together with estimates from secondary data of the total number of nights spent in each category of accommodation during the period. Application of the number of nights to the expenditure pattern for each market segment resulted in estimates of direct spending by tourists while in the region. Direct spending on travel to and from the region which accrued within the region was estimated indirectly. Spending associated with the tourist industry includes net current expenditure by government on the provision of free services in the region, mainly by the NT Tourist Commission and NT Conservation Commission, spending on promotion within the region and capital investment on facilities and infrastructure to meet the needs of visitors in the future. These were estimated from published statistics.

It was necessary to select or construct a multiplier model of the region. Initially the intention was to construct an ad hoc Keynesian model of the region of the Archer variant (Archer 1977 a & b) which would have traced the structural interactions of those industries directly or indirectly producing output to satisfy tourist demand or the resulting induced consumption demand of householders. When the Generation of Regional Input-Output Tables for the Northern Territory (West, Wilkinson & Jensen, 1980) became available, it was decided to use the Alice Springs region table developed there together with that for the Territory to estimate impacts on the region and flow-on effects for the Territory economy.

The importance of the tourist industry to the economic structure of the region and its growth in the medium-term was explored using the estimates of economic activity so generated for 1979-80 and for 1987-88 under low and high scenarios of growth in tourist expenditures. (See figure 1).

Figure 1: Methodology



Multiplier Analysis

Changes in the level of expenditure originating outside an economic system initiate a geometric series of impacts on output, income and employment. The magnitude of these impacts is determined by the relative significance of leakages from the system such as imports, savings and taxes. Multiplier analysis sets out to trace that series of impacts. Special problems are associated with multiplier analysis at the regional level. The absense of artificial barriers to the flows of goods, services and money gives rise to the great openness of regional economies. Thus injections and leakages are more difficult to trace, interindustry linkages tend to be weaker and multipliers tend to be substantially lower than at the national level. At the same time, divergent institutional, production and consumption relationships give rise to substantial variations in regional multipliers by industry sector. Data deficiencies are also more acute at the regional level.

Simple Keynesian multiplier models and economic base models are highly aggregative though more sophisticated versions allow assessment of disaggregated injections and leakages. Econometric models give insight into the structure of national or regional economies but require a strong data base and statistical stability in estimated relationships. Both of these factors present problems in the use of this technique for very small regions.

Input-output models provide a detailed analysis of interdependent production relationships and disaggregated output, income and employment multipliers. Despite the limitations imposed by the assumptions that make modelling of complex economic relationships possible, a survey-based input-output table is accepted as an effective model by which to measure economic impacts. This would be particularly so 'given good sampling techniques, expert field workers, well-designed questionnaires and a concomitant large budget' (Jensen, Mandeville & Karunaratne 1976, 10). The high cost of survey-based input-output models has encouraged the search for acceptable non-survey techniques. Most such techniques attempt to adapt national coefficients for the greater leakages into imports at the regional level. Idiosyncratic differences in product mix or production techniques of particular sectors at the regional level are difficult to capture. The GRIT methodology uses mechanical techniques such as location quotient adjustment of national coefficients and reconciliation by the RAS technique (a biproportional constrained matrix method) together with the insertion of superior data at various stages of aggregation. This makes GRIT more than a mechanical method. (GRIT: Generation of Regional Input-Output Tables). The tables for the Northern Territory and the Top End have been revised using superior data and reclassifying some activities (Mules & Morison 1981).

The simplifying assumptions that enable the mapping of a complex economic reality by constructing an input-output model include assumptions that:

. the coefficients of production associated with the linear production functions are fixed, including the trade patterns which are so important at the regional level;

. the products within each sector are homogeneous, usually determined by technological homogeneity; and

. the total effect of production is the sum of the separate effects.

The interdependent structure of an economy is shown in the transactions table. The inputs each industry draws from each of the other industries, householders, other value added and imports is indicated by column and the disposition of the output of each industry to all others and final demand (including consumption, and exports) by row. The transactions table is transformed into a table of direct coefficients by dividing purchase entries by column totals for each sector. These show the direct first round purchases of the output of a given sector by any other sector for each dollar change in its sales.

Total direct and indirect requirements per dollar of final demand for the output of each sector are shown by a table of interdependency coefficients obtained by a general solution of the equations of the system. The output multiplier for each sector is the sum of each column of interdependency coefficients of this inverse matrix for the open model. Closure of the model to include household income and consumption enables the estimation of output multipliers that include direct, indirect and induced effects (in conventional terminology).

Total income multipliers showing the proportion of each dollar of final demand going to household income for both open and closed models and multipliers of Type I (direct + indirect/direct income multipliers) and Type II (direct + indirect + induced/direct income multipliers) are also derived. Employment multipliers are similar in concept to income multipliers.

The multipliers presented in the GRIT input-output models have been redefined in terms of the initial effect, first round and industrial support effects (the induced production effect) and the consumption induced effect. This is so as to avoid confusion with the use of the terms 'direct' and 'indirect' in conventional terminology.

Tourism in Central Australia

The number of tourists attracted to Central Australia, as a destination is determined by the region's location, attractions and supply of tourist facilities, the size of the intrastate and domestic markets and Australia's comparative advantage in attracting visitors from international markets.

Statistical data on the movement of visitors to and within the Territory are limited. Most statistics apart from the census count of visitors to Uluru National Park and surveys of international visitors for 1971-72, 1973-74, 1979-80 and 1981 (ATC) relate to the Territoy as a whole. The first comprehensive survey of visitors to the Northern Territory is the Northern Territory Travel Survey 1981-82 (Roy Morgan 1982). The number of visitors to Ayers Rock has grown from 2 296 in 1958 to 81 342 in 1981/82, an average annual compound rate of growth of 17 per cent. Overseas visitors are estimated to have spent 79 000 nights in the Centre in 1971-72 (21 per cent of the Territorian total and 0.5 per cent of the Australian) and 123 800 nights in 1979-80 (45 per cent of the Territorian total and 0.6 per cent of the Australian. Percentages are rounded in most but not all instances). Interest in the Centre appears to have increased more than that in the Top End. The continuing research known as the Domestic Tourism Monitor (ASCOT, 1979 to 1982) has produced estimates for the Territory as a whole since 1978-79. However, even at the Territory level these results are issued with the caveat of unreliability as the number of respondents indicating travel to or within the Territory is such a small proportion of the nationwide sample.

For Australia as a whole, domestic travel is much more significant than international travel, and intrastate trips, account for the larger part of domestic travel. Estimates for the April 1979 to March 1980 year suggest that international visitors accounted for just under 2 per cent of trips to desinations in Australia, interstate visitors nearly 19 per cent and intrastate visitors 80 per cent (table 1). It is not possible to make a similar estimate for Central Australia in 1979-80, however estimates for 1981-82 indicate that 16 per cent were from overseas, 56 per cent from interstate and only 28 per cent from parts of the Territory (Roy Morgan 1982, 25, 37). Central Australia depends on international and interstate markets to a greater degree than Australia as a whole or any of the states.

The attractions of Central Australia for the tourist include:

. the many places of dramatic beauty, geographical interest, unique flora and fauna and historical significance, mostly incorporated into national parks;

. the town of Alice Springs where attractions emphasise the history of the area, the evolution of distinctive responses to the harsh and isolated environment and Aboriginal culture;

. distinctive aspects of the outback way of life, either in the historical settler responses to the environment or expectations of participating in or observing the pioneering outback or last frontier;

. contact with Aboriginal people and their traditional culture; and

. the very pleasant winter climate.

Visitor Surveys: Alice Springs Region, May-July 1980

The primary objective of the major survey was to gather data on expenditure within the region by visitors and the factors determining that expenditure such as purpose of visit, accommodation used, duration of stay and type of trip. Surveys of visitors to Ayers Rock had shown that few visitors to the region did not spend time in Alice Springs so visitors were contacted during their stay there at places of accommodation. No attempt was made to randomise the sample as the survey period was only eight weeks and the most recent reliable estimates of seasonal variations in visitation were for 1973-74.

A total of 822 respondents returning usable questionnaires were found to represent 1 511 visitors. Overseas visitors were 16 per cent of the total, interstate 81 per cent and intrastate (from other regions of the Territory) only 3 per cent. Visitors on working holiday but working in the region and regional residents were not included. A second survey of a random sample of households provided the basis for the estimation that in 1979-80 almost 12 000 visitors spent about 225 000 nights with friends or relatives in Alice Springs. Those staying with friends or relatives at the time of interview (24 from interstate and 8 from overseas), together with their hosts, gave information that indicated per person per day expenditure for those market segments. Average per person per day expenditure in each of the eleven categories of expenditure in Table 2 ranged from $7.64 for accommodation to $0.51 for entry to tourist attractions and totalled $27.25. Overseas visitors spent more than interstate visitors most noticeably on accommodation, airfares in the NT and local coach tours.

Thirty market segments were distinguished by three criteria: visitor type by origin and use of package tours, main purpose of travel to the Territory, and main accommodation used in the region. Table 3 lists these market segments. Market segments 6, 19, 25 and 30 were included to allow consideration of the impact of visitors whose main accommodation was 'other' or 'camping/caravan not in Caravan Parks'. Overseas visitors were thought to spend 16 per cent of total nights and interstate visitors 22 per cent in these categories of accommodation (ATC 1980; ASCOT 1980).

The per person per day expenditure patterns by market sector set out in table 4 show marked variations in spending on accommodation, airfares within the region, local coach fares, car hire and fuel. Business travellers in market segment 13, tended to have the highest expenditure on most of these items. The highest per person per day expenditure was found for Australian 'business not government' ($110.11), overseas holiday and recreation ($66.00 if on a package and $61.64 if not), Australian business government ($60.11) and Australian holiday and recreation not on a package ($57.25), all staying in hotel/motel accommodation with facilities.

Estimation of Expenditure, 1979-80

Total nights spent in each category of accommodation in the region were assessed to total over 965 000 with commercially provided accommodation accounting for about 64 per cent of the total. This compares with about 48 per cent of nights spent by domestic travellers and 45 per cent of nights spent by

overseas visitors in Australia as a whole in the same period. Total nights for each accommodation category (table 5) were allocated between the relevant market segments by the proportions found in the survey. Expenditure for each market segment was estimated by applying the number of nights to the relevant expenditure pattern. Expenditure by tourists while in the region was found to total over $26 000 000 in current pricees.

Spending on travel to and from the region was assessed at $30.40 per visitor. Overseas and interstate visitors were estimated to spend an average of $32.00 on the return journey in 1981-82 (Roy Morgan 1982, 57). TAA's statement of expenditure suggested that for every dollar attributable to the regional provision of fuel and services for outbound passengers, $0.20 could be similarly attributed for inbound passengers. This implied that $38.40 in 1981-82 prices or $30.40 in 1979-80 prices accrued to the region for each traveller. The 123 200 visitors estimated to come to the region were thus assumed to spend $3 745 000 on this item of direct expenditure.

Expenditure associated with the tourist industry included:

. net spending on free services, estimated to total $1 698 000 in recurrent spending as shown in annual reports and budget papers on Uluru (90 per cent of the total), other NT Conservation Commission parks and reserves (60 per cent), Tourist Commission head office (30 per cent) and the Alice Springs Tourist Bureau (10 per cent).

. capital investment on tourist facilities and infrastructure of $2 810 000 on roads (proportions of totals shown in Auditor- General's report 1980), $3, 360 000 on Yulara Tourist Village (total spending) $684 000 on national parks (90 per cent for Uluru and 60 per cent for others) and $1 530 000 on the construction of hotels and notels (60 per cent of the total indicated in unpublished data by the ABS).

. spending on promotion (printing brochures) by the NT Tourist Commission was estimated at $100 000.

Expenditure associated with the present and future operations of the tourist industry was estimated to total $10 183 000 and direct expenditure $30 054 000, making a total of $40 237 000.

Measurement of the Effects of Tourist Spending, 1979-80

The eleven categories of expenditure were chosen after consideration of the sectoral structure adopted for the input-output models (table 6) so most expenditure could be readily allocated. Table 7 shows the allocation of expenditure in both current and base year prices. The price indices used were the Australian average for components of the Consumer Price Index, for articles produced by manufacturing industries and implicit price deflators for components of Gross Domestic Product, ass appropriate.

Each vector of expenditure was applied to the sectoral multipliers of the inverse matrices of the open and closed models for the Alice Springs region and then for the Northern Territory. Altogether, the impact of $40 237 000 in direct and associated expenditure was estimated to have resulted in $60 548 000 in output, $22 503 000 in income and 1 245 jobs in Central Australia. A further $1 471 000 in output, $4 102 000 in income and 1 107 jobs were estimated to have resulted for the rest of the Territory (see table 8). Not all of the differences can be accepted as flow-on effects to the rest of the Territory, particularly in view of the strong business connection between Alice Springs and Adelaide. In addition, the unrevised model of the Alice Springs region does not reflect the establishment of the NT Public Service in 1978, the re-granting of an export licence to the Alice Springs abattoirs and industry linkages with new businesses established since 1976. Thus effects on the Alice Springs regional economy appear to be underestimated, particularly the impacts involving sectors 1, 2, 4 and 10.

Average multipliers for the tourist industry of Central Australia were found from the ratio between initial expenditure and output, income and number of jobs with employment measured per thousand dollars. table 9 shows average multipliers computed in 1979-80 prices for the effects of direct expenditure by tourists and total expenditure on the region and the Territory. Type 11 B multipliers for income and employment (initial + production induced + consumption induced effects/initial + impetus to output) are also indicated. Direct expenditure was found to impact on the region with average multipliers of 1.4801 for output, 0.5678 for income and 0.0312 for employment. Those for total expenditure were slightly higher for output but slightly lower for income and employment. At the Territory level, average multipliers were found to be slightly higher for output but significantly higher for income and employment.

Flow-on effects for the region and the Territory were disaggregated by sector. Consumption induced effects were generally stronger than production induced effects. The trade sector dominated the flow-on effects induced through production and consumption effects resulting from associated expenditure. Strong interindustry linkages between building and construction and some manufacturing (metal fabrication, cement blocks) accounts for the dominance of that sector in production induced effects of associated expenditure. Other service sectors (finance, transport, community services/entertainment) gained significant activity through consumption induced effects. The relative magnitude of all disaggregated effects induced through production and consumption is indicated by the disaggregated employment effects set out in table 10.

Potential Impacts of the Tourist Industry, 1987-88

Forecasting provides a basis for rational planning and decision making which may temper the inclination of many towards 'allocating scarce resources by competitive optimism'. The role of forecasting future demand for tourist facilities and services in 1987-88 is not so much to exactly predict the number of visitors who will come in that year but the range within which that number is likely to fall.

The number of tourists going to a destination is made up of heterogeneous market segments each subject to secular trends, cyclical fluctuations and seasonal variations. The supply of facilities and services is very fragmented. Plans of visitors and suppliers of the tourist produce are vulnerable to natural, political and economic changes and erratic shocks. Forecasting tourist demand is therefore difficult.

Understanding the future depends on some elements being predictable with confidence. Extrapolation of the trend evident in past observations to obtain estimates of future consumption assumes that development will continue in the short - to medium-term as in the recent past. Medium - to long-term forecasts also need to take account of likely changes in trend due to unusual events or planned developments. The factors more easily predicted can be used to make a basic estimate. Other credible developments can be handled by alternative scenarios. However, the actual number of visitors in 1987-88 may vary from the trend value due to cyclical fluctuations and still be consistent with that trend.

A number of methods was employed to generate low and high projections of the number of international, interstate and intrastate visitors and the nights they would be likely to spend in the region in 1987-88 and to check those projections.

For international visitors, the low projections of 31 000 visitors staying 220 000 nights (average length of stay 7.1 nights the same as in 1979-80) was taken from the trend evident in observations for 1971-72, 1973-74, 1979-80 and 1981-82 (ATC; Roy Morgan 1982). Foreseeable events such as the opening of Yulara Tourist Village (progressively through 1983 and 1984), the sealing of the road south of the Territory border (1986) and the Bicentenary (January 1988) could be expected to bring about a faster annual average rate of growth,

possibly as high as 11 per cent. This compares with projections of 10 per cent for Australia and 12 per cent and then 11 per cent for Victoria between 1982 and 1990 (Victoria 1981). An 11 per cent average annual growth suggests a high projection of 50 000 visitors who could stay up to 405 000 nights, assuming average length of stay increased by one night to 8.1 nights.

A check was made by assuming that the number of international visitors to Central Australia will grow from the 1981-82 number by the average annual rate of growth in visitors to Australia between 1972 to 1981 (10.38 per cent). This suggested 53 880 visitors who could stay between 382 590 and 436 430 nights depending on average length of stay.

Insufficient observations precluded extrapolation of a trend for numbers of interstate visitors to the region. The Victorian study estimated that domestic travel in Australia would grow at average annual rates between 5 and 6 per cent in Australia and between 5 and 4.5 per cent and 9 and 7 per cent in/to Victoria. It was decided to use 4.5 per cent to give a low projection of 126 000 visitors staying 882 000 nights and 7 per cent to give a high projection of 145 000 visitors staying 1 305 000 nights. The estimate of 108 000 visitors staying between 756 000 and 972 000 nights (found by applying the 1981-82 proportion between interstate trips to the region and the Australian population (1:152) to an estimate of the Australian population in 1988 (16 473 000, ABS 3214.0 Series B)) was used as a check.

Intrastate visitors were estimated in per capita terms. The 0.383 trips per capita to the Centre in 1981-82 (Roy Morgan 1982) was adjusted to 0.19 to exclude trips by regional residents and used for the low projection. A factor of 0.34 was used for the high projection after a similar adjustment to the ratio shown by the ASCOT study for the same year. With the Territory population projected to grow to 160 388 in 1988 (NT Department of Treasury 1982) intrastate visitors in 1987-88 were estimated to range between 30 000 and 55 000 and their stay between 105 000 and 246 000 nights.

Overall, it appears likely that between 187 000 and 250 000 visitors staying between 1 207 000 and 1 956 000 nights in the region could come to Central Australia in 1987-88 (table 11). These visitors were assumed to spend by the same patterns of expenditure in real terms as visitors in 1979-80.

No adjustments were made to the average per person per day expenditure patterns for international and domestic visitors for direct expenditure by tourists while in the region (table 4) and the $30.40 per capita spending on travel to and from the region. A discernible shift to cheaper accommodation for some can be expected but at the same time the provision of international class hotel/motel accommodation is likely to encourage new market segments with higher rates of expenditure. Transport costs may rise in real terms but may be offset by innovative approaches to domestic air transport and increased use of road transport after 1986. Total direct expenditure in 1987-88 was estimated to be likely to range between $39 334 000 and $62 660 000 in 1979-80 prices, allocated to sectors as shown in table 12. Expenditure by private enterprise and government authorities associated with the tourist industry in 1979-80 was also assumed to be typical when considered in real terms per visitor night. By sector, that ranged from $0.10 for manufacturng, $0.11 for trade, $0.75 for public administration, $0.90 for community services to $8.69 for building and construction. Total associated expenditure for the 1987-88 year was estimated to range between $12 766 000 and $20 678 000 in 1979-80 prices (table 13).

Similar procedure of deflation to 1976-77 prices and application to the input-output models enabled the estimate that direct expenditure could generate between $58 193 000 and $92 812 000 in total output effects, and between $22 379 000 and $35 825 000 in income effects (in 1979-80 prices) and between 1 231 and 1 966 jobs in the Alice Springs region. Total output, income and employment effects likely to result for the region from direct and associated tourist expenditure in 1987-88 could range between $78 340 000 and $125 440 000, between $29 261 000 and $46 969 000 and 1 620 and 2 596 jobs. Flow-on effects to the rest of the Northern Territory and disaggregated effects for both the region and

the Territory can be expected in similar proportions to those found for 1979-80 (tables 14 and 15).

The Importance of the Tourist Industry to Central Australia

In defining the distinguishing characteristics of regional economics, Meyer focussed on the 'economics of resource immobility' (1963, 26). Tourism is bound by the immobility of natural and man-made resources that make a destination's attractions. However, consumption of the tourist product is also fixed to the location of the tourist resources so that the aim of promoters and suppliers of the tourist product is to shift the geographical location as well as the pattern of consumption of potential visitors.

It is estimated that in 1979-80, the tourist industry was responsible for employment in 1 245 full-time equivalent positions in Central Australia. That is 13 per cent of the total employment of 9 457 which was estimated (see table 15) by adjusting 1981 census data indicating employment by industry for those not stating industry and for non-residents but not for local residents of the region who were absent on census night. The number employed in each industry as a result of the presence of the tourist industry in the region is the sum of disaggregated employment effects of direct spending by tourists and associated spending by suppliers of the tourist product (table 10).

The importance of tourism to each industry sector is shown by the proportion of total employment in that sector. The industrial sectors most dependent on tourism are transport/communication, construction, manufacturing, trade and finance. Unfortunately the aggregation of community services with entertainment/recreation in the GRIT classification of sectors prevents an estimate of the importance of tourist demand to the entertainment/recreation industry. However, as shown in table 10, the initial impact of direct expenditure on accommodation and restuarants is estimated to account for 330 jobs which is 35 per cent of total employment in entertainment/recreation, without taking account of induced effects.

The principal exports of Central Australia are produced by the pastoral and tourist industries, but the greatest potential for expansion of the region in the foreseeable future appears to be offered by the growing tourist industry. The pastoral industry is unlikely to expand as above average rainfall in recent years has encouraged a cattle population above the optimal level. Proven mineral resources include natural gas (being piped from Palm Valley), oil (Palm Valley and Mereenie) and others that are not being exploited to any great degree. Important resources of gas/oil and gold are expected to be found in the region but the significance of finds and timing of possible production is unknown. The use of the area for electronic and geophysical monitoring is unlikely to change significantly in scale.

The importance of the tourist industry to the economic structure of Central Australa in 1987-88 was assessed in terms of the range of employment effects likely to result. As tourism appears to present the main opportunities for employment growth, it was assumed that employment in the rest of the economy would remain unchanged. Estimates of employment unrelated to the tourist industry were added to the low and high estimates of employment resulting from direct and associated tourist industry expenditure shown in table 15. The numbers of positions thought likely to result from the tourist industry should be interpreted as approximate lower and upper limits to the range of employment effects rather than precise predictions. This is due in part to the nature of forecasting and in part to the limitations of the input-output model as a method of measuring the economic impacts of final demand for products of the region. The employment impacts would differ from the estimates if excess capacity existed in the base period, if employers preferred to expand output by increasing overtime or changing technology, or if external or internal economies of scale were possible. The underlying assumption of strictly proportional relationships between real output and employment would be inappropriate if any of these factors were significant.

The application of the range of tourist industry employment to that for the rest of the economy allowed the conclusion that between 9 832 and 10 808 residents of the region would be employed in 1987-88 (table 17). Community services/entertainment together are likely to account for about 40 per cent of total employment and each of the trade, transport/communication and building/construction sectors around 10 per cent of the total.

The tourist industry of 1987-88 is likely to generate employment effects that range between 17 per cent and 24 per cent of total regional employment. Such high dependence on one industry, especially one for which demand has been found to fluctuate pro-cyclically, implies increasing sensitivity to economic fluctuations for the regional economy. Cyclical fluctuations in tourist demand can be expected to cause those employment effects to be above the trend based low estimate during a boom but below the trend during a recession.

Because the tourist industry is a way of achieving balanced development between the regions of the Northern Territory, the Government has taken initiatives to foster the expansion of the industry through the activities of the NT Development Corporation, Conservation Commission and Tourist Commission and encourage private sector involvement. Opportunities for imaginative provision of facilities and services as well as promotion will continue to occur as the industry expands. Adequate responses by both public and private sector interests will facilitate the realisation of the industry's potential in Central Australia.

TABLE 1
Visitors to/in Australia and Central Australia

	International	Interstate	Intrastate	Total
Australia 1979-80				
Trips '000	848	9,064	38,869	48,781
%	1.7	18.6	79.7	100.0
Central Australia 1981-82				
Trips '000	27.0	96.6	48.7	172.3
%	15.7	56.1	28.2	100.0
Nights '000	202.8	789.2	171.3	1,163.2
%	17.4	67.9	14.7	100.0

TABLE 2
Average Expenditure by Item, 1979-80, $/person/day.
Survey 1

Expenditure Category	Visitors International	Interstate	All
Accommodation	10.77	7.18	7.64
Restaurants	2.59	1.75	1.86
Supermarket/stores	3.16	3.35	3.33
Local artefacts/art	0.97	0.82	0.84
Entry to tourist attractions	0.76	0.48	0.51
Airfares in the NT	6.48	1.98	2.55
Local coach tours	8.94	5.37	5.82
Car hire	0.56	1.00	0.94
Fuel	0.79	2.24	2.05
Car repairs	0.35	0.72	0.68
Other items	0.81	1.06	1.03
TOTAL	36.18	25.95	27.25

Table 3

Market Segments with Expenditure Patterns

Market Segment	Visitor Type	Purpose	Accommodation	Respondent groups giving expenditure	Total respondent groups
1	Australia not Package	Holiday & recreation	Hotel/motel with facilities	119	123
2			H/M without facilities + hostel/guesthouse	30	30
3			Youth hostel + bunkhouse	11	11
4			Flats/cabins	10	11
5			Caravan parks	51	51
6			'Other'		
7		Visit friends & relatives	Hotel/motel with facilities	11	11
8			H/M without facilities + hostel/guesthouse	7	8
9			Caravan Park	7	8
10			With friends & relatives	14	15
11		Business - government	Hotel/motel with facilities	21	24
12			H/M without facilities + hostel/guesthouse	3	3
13		Business - not govt	Hotel/motel with facilities	75	82
14			Caravan Park	9	9
15		Accompany business traveller	Hotel/motel with facilities	15	16
16	Australia Pakage	Holiday & recreation	Hotel/motel with facilities	150	190
17			H/M without facilities + hostel/guesthouse	10	10
18			Caravan Park	7	7
19			'Other'		
20		Education	Caravan Park	11	11
21	Overseas not Package	Holiday & recreation	Hotel/motel with facilities	41	44
22			H/M without facilities + hostel/guesthouse	12	12
23			Youth hostel + bunkhouse	29	30
24			Caravan Park	5	5
25			'Other'		
26		Visit friends & relatives	With friends & relatives	5	5
27		Business - government	Hotel/motel with facilities	3	3
28	Overseas Package	Holiday & recreation	Hotel/motel with facilities	19	36
29			Caravan Park	15	15
30			'Other'		

Table 4

Expenditure Patterns for Market Segments
($ per person per day) (Survey 1)

Market Segment	Accommodation	Restaurant	Stores	Art	Entry	Airfares	Coach	Car Hire	Fuel	Car Repairs	Other Items	Total
01	22.02	4.60	4.10	1.54	0.78	7.25	11.76	2.50	1.72	0.08	0.90	57.25
02	15.74	4.48	4.02	1.74	0.77	2.19	7.97	2.07	1.35	0.00	0.50	40.83
03	4.50	2.85	3.20	0.30	0.84	0.63	4.71	0.06	0.30	0.00	0.90	18.29
04	4.58	2.62	3.64	0.90	0.58	1.59	4.42	3.34	3.42	1.15	1.50	27.74
05	4.25	1.22	3.94	0.82	0.74	0.66	1.88	0.40	4.36	1.62	0.90	20.79
06	0.00	0.61	2.00	0.40	0.05	0.30	1.88	0.40	4.36	1.62	0.50	12.12
07	17.74	4.40	3.35	0.28	0.61	5.76	5.15	1.65	1.55	0.00	0.80	41.29
08	16.72	3.65	2.99	0.96	0.59	3.62	5.83	0.10	0.63	0.00	0.30	35.39
09	3.69	1.79	3.23	0.64	0.40	0.61	0.82	0.71	4.27	0.16	0.90	17.22
10	0.62	0.99	3.32	0.64	0.20	1.40	1.58	1.16	0.79	0.43	1.90	13.03
11	37.63	5.46	2.67	0.06	0.05	4.70	0.90	4.76	0.48	0.00	3.40	60.11
12	22.58	1.17	0.65	0.14	0.03	0.00	0.10	1.43	0.95	0.00	2.60	29.65
13	39.82	8.12	2.07	0.36	0.24	32.82	0.52	16.59	5.85	0.42	3.30	110.11
14	3.83	2.46	3.52	0.04	0.15	11.11	0.10	0.80	13.65	5.00	1.60	42.26
15	14.50	4.54	3.30	0.64	0.71	7.15	2.87	4.00	1.50	0.00	1.90	41.11
16	22.45	2.84	2.22	1.18	0.59	3.58	17.41	0.53	0.14	0.00	0.60	51.54
17	16.40	2.25	3.40	1.34	0.50	1.43	17.35	0.50	0.13	0.00	0.40	43.70
18	3.13	0.62	3.46	0.82	0.57	0.50	13.89	0.02	0.00	0.00	0.30	23.31
19	0.00	0.30	3.46	0.04	0.04	0.25	6.95	0.02	0.00	0.00	0.30	11.36
20	2.76	0.70	3.20	0.98	0.81	0.50	12.03	0.02	0.00	0.00	0.30	21.30
21	23.14	4.40	3.64	2.50	1.03	12.46	10.33	2.83	0.41	0.00	0.90	61.64
22	16.45	2.48	2.42	2.24	0.94	2.59	11.23	0.60	0.09	0.00	0.50	39.54
23	4.67	1.51	3.57	0.19	0.88	2.07	2.71	0.47	0.58	0.32	1.00	17.97
24	2.50	1.55	2.78	0.12	0.75	0.00	9.88	0.02	3.14	1.64	0.50	22.88
25	0.00	0.78	2.78	0.06	0.04	0.00	4.94	0.02	1.57	1.00	0.50	11.69
26	5.60	3.05	2.72	0.70	0.76	12.00	1.97	0.19	1.92	0.00	2.00	30.91
27	21.60	10.00	2.66	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.26
28	26.05	3.65	3.33	1.26	1.10	12.05	18.34	0.02	0.00	0.00	0.20	66.00
29	2.93	1.45	3.27	0.50	0.86	0.50	12.48	0.02	0.00	0.00	0.70	22.71
30	0.00	0.72	3.27	0.26	0.04	0.25	6.24	0.02	0.00	0.00	0.20	11.00

TABLE 5

Nights Spent in Central Australia

April 1979 - March 1980

Accommodation	Total	International Visitors	Australian Visitors
Hotel-motel with facilities	155,630	41,430	114,200
Hotel-motel without facilities/guest-house	116,480	5,910	110,570
Youth hostel/bunkhouse	16,930	10,160	6,770
Holiday flats/cabins	5,740	1,220	4,520
Caravan Parks	344,190	23,440	320,750
With friends/relatives	230,000	21,730	208,270
Other	96,450	19,940	76,510
TOTAL	965,420	123,830	841,590

TABLE 6

Sectors of the Input-Output Models

1. Animal Industries
2. Other Primary Industry
3. Mining
4. Manufacturing
5. Electricity, Gas, Water
6. Building and Construction
7. Trade
8. Transport and Communication
9. Finance
10. Public Administration and Defence
11. Community Service, Entertainment

TABLE 7

Estimated Expenditure 1979-80

Direct Spending by Tourists			1979-80 Prices '000	1976-77 Prices '000
Sectors	4	Manufacturing	199	160
	7	Trade	6,552	5,364
	8	Transport	13,036	9,608
	11	Community Services, Entertainment	10,267	8,405
		TOTAL	30,054	23,537

Spending Associated with the Tourist Industry				
Sectors	4	Manufacturing	100	77
	6	Building and Construction	8,385	6,785
	7	Trade	110	90
	10	Public Administration	720	557
	11	Community Services	868	711
		TOTAL	10,183	8,220

TABLE 8

Total Effects On Output, Income and Employment, 1979-80

Final Demand for	Type of Effect	Output $'000 1976-77 Prices	Output $'000 1979-80 Prices	Income $'000 1976-77 Prices	Income $'000 1979-80 Prices	Employment No.
Alice Springs Region						
Direct	A	23,537	30,054	8,252	12,668	709
Tourist	B	3,178	4,008	2,340	1,064	62
Consumption	C	8,369	10,420	2,572	3,334	166
	D	11,548	14,423	4,912	4,398	228
	Total	35,085	44,483	13,164	17,066	937
Associated	A	8,220	10,183	2,905	3,749	214
Expenditure	B	2,050	2,616	501	667	43
	C	2,624	3,266	788	1,021	51
	D	4,674	5,882	1,289	1,688	94
	Total	12,894	16,065	4,194	5,437	308
Northern Territory						
Direct	A	23,537	30,054	11,235	14,565	1,315
Tourist	B	3,705	4,728	1,317	1,707	175
Consumption	C	8,931	11,137	3,568	4,625	436
	D	12,636	15,865	4,885	6,332	610
	Total	36,173	45,919	16,119	20,897	1,926
Associated	A	8,220	10,183	2,880	3,732	236
Expenditure	B	2,234	2,876	549	710	71
	C	2,439	3,041	974	1,266	119
	D	4,673	5,917	1,523	1,976	190
	Total	12,893	16,100	4,403	5,708	426

* Any discrepancy in total is due to rounding.
A = initial impact.
B = production induced effects.
C = consumption induced effects.
D = total flow-on effects.

TABLE 9

Average Multiplier, Tourist Industry of Central Australia, 1979-80 a.

	OUTPUT TOTAL	INCOME TOTAL	INCOME TYPE IIB	EMPLOYMENT TOTAL	EMPLOYMENT TYPE IIB
Alice Springs Region					
Direct Expenditure	1.4801	0.5678	1.3472	0.0312	1.2934
Total Expenditure	1.5048	0.5593	1.3707	0.0309	1.3489
Northern Territory					
Direct Expenditure	1.5279	0.6953	1.4347	0.0641	1.4646
Total Expenditure	1.5413	0.6612	1.4541	0.0585	1.5164

a. These are measured in 1979-80 prices.

Table 10

Disaggregated Employment Effects, Tourist Industry, 1979-80

	Alice Springs Region								Northern Territory							
	Direct Expenditure				Associated Expenditure				Direct Expenditure				Associated Expenditure			
	A	B	C	Total	A	B	C	Total	A	B	C	Total	A	B	C	Total
1	-	-	-	-	-	-	-	-	-	-	4	4	-	-		1
2		-	-	-	-	-	-	-	-	14	10	24	-	1	3	4
3	-	-	-	-	-	1	-	1	-	1	-	1	-	3	-	3
4	4	7	7	18	2	20	2	24	1	4	7	12	1	11	2	14
5	-	3	3	6	-	1	1	2	-	6	5	11	-	1	2	3
6	-	13	11	24	174	5	4	183	-	15	12	26	163	4	3	170
7	70	19	43	132	-	8	14	22	392	103	214	709	7	39	59	105
8	305	9	25	339	-	4	8	12	317	10	9	336	-	4	3	7
9	-	4	40	44	-	1	13	14	-	7	83	90	-	2	23	25
10	-	-	2	2	10	1	1	11	-	-	4	4	14	3	1	18
11	330	7	35	372	28	1	9	38	605	15	88	708	51	3	24	78
Total	709	62	166	937	214	43	51	308	1315	175	436	1926	236	71	119	426

(any discrepancy in totals is due to rounding)

A = initial impacts; B = production induced effects; C = consumption induced effects.

Sector 1 - Animal Industries
2 - Other Agriculture, Forestry, Fishing
3 - Mining
4 - Manufacturing
5 - Electricity, Gas and Water
6 - Building and Construction
7 - Trade
8 - Transport
9 - Finance
10 - Public Administration and Defence
11 - Community Service, Entertainment

TABLE 11

Projected Nights, Central Australia 1987-88

	Low estimate		High estimate	
	Visitors '000	Nights '000	Visitors '000	Nights '000
International	31	220	50	405
Interstate	126	882	145	1,305
Intrastate	30	105	55	246
TOTAL	187	1,207	250	1,956

TABLE 12

Estimated Direct Expenditure, 1987-88 In 1979-80 Prices By Input-Output Sector

Visitors from	Sectors 4 $'000	7 $'000	8 $'000	11 $'000	Total $'000
Overseas					
Low	36	1,105	4,511	3,248	8,901
High	66	2,063	8,172	6,055	16,356
Australia					
Low	210	6,969	13,323	9,932	30,433
High	329	10,909	19,516	15,551	46,304
TOTAL					
Low	245	8,074	17,834	13,180	39,334
High	395	12,972	27,688	21,606	62,660

TABLE 13

Estimated Associated Expenditure, 1987-88

In 1979-80 Prices

Sector 1987-88b $'000	Per Visitor Night 1979-80a $	Expenditure Low	High
4 Manufacturing	0.10	121	196
6 Building & Construction	8.69	10,515	17,032
7 Trade	0.11	133	216
10 Public Administration	0.75	908	1,470
11 Community Services	0.90	1,089	1,764
TOTAL		12,766	20,678

TABLE 14

Total Effects on Output, Income and Employment

1987-88 in 1979-80 Prices

Types of Expenditure and Effects	Alice Springs Region Output $'000	Income $'000	Employment No.	Northern Territory Output $'000	Income $'000	Employment No.
Direct Expenditure						
Low Estimate						
A+B	44,531	18,007	1,013	45,464	21,216	1,921
C	13,662	4,372	218	14,521	6,030	568
Total	58,193	22,379	1,231	59,985	27,246	2,489
High Estimate						
A+B	70,942	28,826	1,618	72,441	33,946	3,086
C	21,870	6,999	349	23,237	9,649	909
Total	92,812	35,825	1,966	95,678	43,595	3,995
Associated Expenditure						
Low Estimate						
A+B	15,945	3,537	322	16,374	5,574	385
C	4,202	1,345	67	3,818	1,585	148
Total	20,147	6,882	389	20,192	7,159	534
High Estimate						
A+B	25,825	8,967	522	26,520	9,029	623
C	6,803	2,177	108	6,180	2,567	242
Total	32,628	11,144	630	32,700	11,596	865

TABLE 15

Disaggregated Employment Effects of

Direct Expenditure, 1987-88

Sectors	Low Estimate A+B	Low Estimate C	Low Estimate Total	High Estimate A+B	High Estimate C	High Estimate Total
Alice Springs Region						
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	1	1	-	1
4	14	8	23	23	13	36
5	4	4	8	6	7	13
6	17	15	32	27	23	50
7	111	56	167	177	91	268
8	429	34	462	666	54	720
9	5	52	57	8	84	92
10	-	2	2	-	4	4
11	433	46	479	709	73	782
Total	1,013	218	1,231	1,618	349	1,966
Northern Territory						
1	-	5	6	-	9	9
2	17	14	31	28	22	50
3	1	-	1	1	1	2
4	8	9	17	12	15	27
5	7	7	14	12	10	22
6	19	16	35	31	24	55
7	616	279	895	988	446	1,434
8	446	12	458	693	19	712
9	9	108	117	15	172	187
10	-	5	5	-	8	8
11	797	114	911	1,305	183	1,488
Total	1,921	568	2,489	3,086	909	3,995
Dissaggregated Employment Effects of Associated Expenditure 1987-88						
Alice Springs Region						
1	1	-	1	1	-	1
2	-	-	-	-	-	-
3	1	-	1	2	-	2
4	28	3	30	45	4	49
5	1	1	2	2	2	4
6	224	5	229	363	7	370
7	10	17	27	16	28	44
8	5	10	15	8	17	25
9	2	16	18	3	26	29
10	14	1	14	22	1	23
11	36	14	50	59	23	81
Total	322	67	389	522	108	630
Northern Territory						
1	-	2	2	-	2	3
2	2	3	5	3	6	9
3	3	-	3	5	-	5
4	15	2	17	24	4	28
5	2	1	3	2	3	5
6	209	4	213	339	7	346
7	58	73	131	93	119	212
8	5	3	8	9	5	14
9	3	28	31	5	45	50
10	21	1	22	34	2	36
11	67	30	97	109	49	158
Total	385	148	534	623	242	865

TABLE 16

Employment in Central Ausralia, 1979-80

Industry	(a)	(b)		(c)	(d)	(e)	(f)
Agriculture	552	69		80	541	-	0.0
Mining	153	19		19	153	1	0.7
Manufacturing	387	49	(236)	118	318	42	13.2
Electricity etc.	116	14		26	104	8	7.7
Construction	852	108	(85)	95	865	207	23.9
Trade	1,392	175	(329)	273	1,294	154	11.9
Transport/ Communication	862	109	(96)	111	860	351	40.8
Finance	559	71	(113)	123	507	58	11.4
Public Admin./ Defence	992	116	(75)	100	938	13	1.4
Community Services/ Entertain.	3,612	454	(269)	284	3,782	410	10.8
Other	102	14	(28)	21	95	1	1.1
Total	9,509	1,198		1,250	9,457	1,245	13.2

(a) Those present in the region on 30 June 1981 who indicated employment by industry.

(b) Those present in the region who indicated employment but not stating industry, distributed by percentage as column (a).

(c) Non-residents present in the region estimated to be part of the workforce (3,015x.6) (proportion of Australians of working age) x .69 (labour force participation rate) = 1,250) distributed by percentage distribution for those stating employment by industry for Australia as a whole. Some adjustments were made.

(d) = (a)+(b)-(c). This does not include local residents absent from the region on census night and is taken to represent employment by indstry for 1979-80.

(e) Employment resulting from the total effects of direct and associated tourist expenditure in 1979-80.

(f) = (e) as a percentage of (d).

TABLE 17

Estimates of Employment Structure

Central Australia, 1987-88

Sector	Rest of Economy	Tourism Low	1987-88 High	Total Low	1987-88 High
1,2	541	1	1	542	542
3	152	2	3	154	155
4	276	53	85	329	361
5	96	10	17	106	113
6	658	261	420	919	1,078
7	1,140	194	312	1,334	1,452
8	509	477	745	986	1,254
9	449	75	121	524	570
10	925	16	27	941	952
11	3,372	529	863	3,901	4,235
Other	94	2	2	96	96
Total	8,212	1,620	2,596	9,832	12,808

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THE IMPACT OF MINING ROYALTIES ON ABORIGINAL ECONOMIC DEVELOPMENT IN THE NORTHERN TERRITORY

J.C. ALTMAN

In this paper I examine both the intended and actual role of mining royalty payments in Aboriginal economic development in the Northern Territory. I divide the periods of payments into two distinct phases: pre-land rights and post-land rights. During the former phase, from 1952-77, government policy was based on the principle of assimilation. The assimilation principle was in turn closely correlated with the development or modernisation paradigm of economists. During the latter phase, government policy swung abruptly to self-determination. This policy was less closely linked to the modernisation paradigm.

I begin by briefly reviewing the role of royalties in the pre-land-rights economic development of Aborigines. The greater emphasis however is on the contemporary post-land-rights situation. Initially, I identify the intended role of royalties as stated in the reports of the Aboriginal Land Rights Commission (Woodward, 1974). I then examine the extent that these intentions were incorporated in the Aboriginal Land Rights (Northern Territory) Act 1976 (henceforth the Act). Next the operation of the royalty-related functions of the Act during its first five years of functioning (1978/79 to 1982/83) are critically examined. Problem areas that have arisen are identified. I conclude by returning to wider issues and then speculate on the role that royalties may have in the future in changing the low structural position of Aborigines in the Northern Territory political economy.

Royalty payments: pre-land-rights (1952-1977)

In 1952, by legislative change, Aboriginal reserves were opened to miners. This policy change coincided with the adoption by the Commonwealth government of an assimilation policy towards Aborigines. Previously, government policy had functioned to 'preserve and protect' Aborigines in remote Australia; now Aborigines were expected to attain the same manner of living as other Euro-Australians. Prior to 1952, it was generally recognised that white population concentrations near Aboriginal communities in remote areas had a negative impact on the Aboriginal way of life. Hence in both the Aboriginals Ordinance 1918 and the Mining Ordinance, 1939, Euro-Australians without permits were excluded from Aboriginal reserves. This exclusion included Europeans holding miner's rights.

From 1952 however, Aboriginal reserves were to work for Aboriginal economic advancement (Hasluck, 1953). It was generally recognised that Aborigines did not have the capital accumulation or technological know-how to establish resource development projects. But government policy envisaged spinoff benefits for Aborigines: they could find gainful employment in the mining industry and utilise the services available in mining towns. More significantly, Hasluck, the Minister for Territories, intended that Aborigines should share in the mineral rent extracted from Aboriginal reserves. Hence in an amendement to the Mining Ordinance in 1953, a double royalty of 2.5 per cent ad valorem was levied on Aboriginal reserves. In an amendment to the Northern Territory (Administration) Act, the Commonwealth was to pay over all mining royalties won on reserves to the Aboriginals (Benefits from Mining) Trust Fund. In 1963 this Trust Fund was renamed the Aborigines Benefits Trust Fund or ABTF.

The pressure to mine in 1952 had come from the Department of Supply; it wanted to see bauxite deposits on the Wessel Islands utilised in the national

interest. However the lack of a suitable deep water harbour in the Wessels and the delineation of massive bauxite deposits on the Gove Peninsula, resulted in this scheme being abandoned.

Prior to the granting of Aboriginal land rights in the NT, two large resource development projects were established. The first was a manganese mine on Groote Eylandt that began production in 1966; the second was a bauxite mine and alumina production plant that was constructed on the Gove Peninsula and began exporting bauxite in 1971. From 1966, the Groote Eylandt Mining Company (GEMCO) paid the double statutory royalty to the ABTF. From 1971, NABALCO, the Gove joint venturer paid royalties; these were not at the double rate, but at a lower rate specified in a special Mining (Gove Peninsula Nabalco Agreement) Ordinance signed in 1968 with the Commonwealth.

From 1966, the ABTF started to receive mining royalties. However the Fund had no policy guidelines. Hence, an Inter-departmental Committee was convened, and in 1969 its report was completed. The main recommendations regarding the use of Fund moneys were that, as the ABTF was established to provide compensatory benefits for the exploitation of resources on reserves and disturbance to the lives of local Aborigines, it should be used for purposes of capital accumulation, community development and special training (Inter-departmental Committee, 1969:6). The Committee recommended that some proportion of funds be directed to Aboriginal communities adjacent to mines. But the bulk of funds were intended to be loaned or granted to Aborigines to establish commercial enterprises, productive industries, and Aboriginal equity interest in mining ventures on reserves. Grants for general community purposes were only to be made when they were outside the guidelines of the Commonwealth capital fund created in 1968.

The ABTF became fully operational in 1970, but by this time, as I have argued elsewhere (Altman, 1983:27-37), it was somewhat anachronistic. Certainly in 1972, when the Whitlam Labor Government came to power and the ABTF had been functioning for three years, its demise was inevitable, for the policy of self-determination of the new government was anti-thetical to the assimilation policy on which the ABTF's guidelines were based. Over its operational life, which extended to 30th June 1978, the royalty revenue of the Fund totalled $10.7 million. Of this, $1 million was paid to community associations at Groote Eylandt and Gove. (This was after a Cabinet decision in 1971 to earmark 10 per cent of royalties for incorporated bodies in communities near mines). $4.7 million was granted and $1.2 million loaned to Aboriginal groups and individuals in the Northern Territory. From January 1977 to June 1978, $3.2 million was granted to Aboriginal Land Councils established by land rights legislation. Of the projects funded by the ABTF, few were successful. Enterprises in primary industries like fishing, forestry and sawmilling were all unsuccessful, probably because they were never economically viable. Community commercial enterprises (like progress associations and stores) and service delivery industries (like provision of housing or transport) were more successful, but not profitable.

The rather obvious failure of assimilationist policies is particularly evident in the economic development field. The ABTF was not successful over its short life because its operations were predicated on two premises: 1) that the economic development of reserves was possible; and 2) that Aborigines would adopt Euro-Australian economic and cultural values and work ethics. The first premise was and remains questionable. It has been argued elsewhere that Aboriginal reserves were not alienated precisely because they were of limited economic value, particularly to pastoral interests (Altman and Nieuwenhuysen, 1979:38-53). Resource development projects were extremely viable in some locations (like Gove and Groote Eylandt) but the regional spinoff benefits were limited. In fact, Aborigines even had difficulty in gaining employment in such projects (see Rogers, 1973; Cousins and Nieuwenhuysen, in press). Secondly, to partake in economic development, Aborigines had to radically alter their cultural practices, particularly their attachment to the land. Yet throughout the assimilationist era, these very practices continued to be remarkably resilient.

The Aboriginal Land Rights Commission

The Whitlam Government of 1972-75 was voted to power with policy commitments to Aboriginal self-determination and land rights. While self-determination allowed Aboriginal communities to decide the pace and nature of their future development as significant components within a diverse Australia, it was still linked to the modernisation paradigm. The ALP identified a need for special welfare provisions in the areas of Aboriginal housing, health, education and employment. The longer term aim of government programs was the improvement of Aboriginal economic status to a level commensurate with the major Euro-Australian society. The problem of Aboriginal poverty was regarded as a problem of social welfare rather than economic policy.

The Aboriginal Land Rights Commission was authorised to inquire into and report upon the appropriate means to recognise and establish the traditional rights and interests of Aborigines in, and in relation to, land. Mr Justice Woodward (1974:2) assumed five broad aims in granting Aboriginal land rights:

1. To meet the requirements of natural justice for a people deprived of their land without consent and compensation.

2. The removal of legitimate cause of complaint from an important minority group.

3. The provision of land holdings as a first essential for a people who are economically depressed.

4. Preserving the Aboriginal spiritual link with the land.

5. Improving Australia's international standing by demonstrating fair treatment of an ethnic minority.

In his second report, Woodward indicated that he envisaged a path for Aboriginal economic advancement that was a radical departure from past policy. His recommendations were no doubt influenced by the failure of assimilationist policies and the flexibility possible within the new government's policy. In the main principles of his report, Woodward (1974:10-11) stated some crucial criteria for economic development. He stated that there is little point in recognising Aboriginal claims to land unless Aboriginal people concerned are also provided with the necessary funds to make use of that land in any sensible way they wish (my underlining). Furthermore he suggested that Aboriginal communities should remain as autonomous as possible, that traditional methods of decision making should be utilised and that Aboriginal people should be free to choose their own manner of living. In his conclusions, Woodward (1974:138) noted that land rights can only be a first step on a long road to self sufficiency and eventual social and economic equality for Aborigines.

While Aboriginal economic development was not explicitly defined, it did include features like economic and social equality, autonomy, and freedom to choose a mode of living. But Woodward also noted that there must be some accountability; public moneys must not be wasted or misappropriated (1974:11). Self-determination gave Aborigines the freedom to choose their own path to economic advancement, but it also meant that they could be held accountable for failures.

The role of mining royalties was central to Woodward's scenario, for he realised the need for funds that were independent of annual budget appropriations. And as already noted, the historical precedent dating back to 1952 existed whereby the Commonwealth surrendered its royalty rights in favour of Aborigines. Woodward believed that Aborigines should have special mining rights and special compensation because they had so much to lose 'from the industrial invasion of their traditional lands' (1974:115). For a number of reasons, Woodward did not recommend that Aborigines should be granted mineral ownership rights - these were to remain with the Crown in the right of the Commonwealth. But he did recommend (1974:127) that Aborigines have a

conditional right to veto mining, and partly as a consequence of this right of veto, a right to negotiate royalties above the statutory rate.

Woodward also suggested a formula for the division of royalty receipts - 30 per cent to communities in areas affected by mining; 40 per cent to Aboriginal Land Councils and 30 per cent to the ABTF. Woodward stressed (1974:136-7) that there was need for flexibility in this 30/40/30 formula. Elsewhere (Altman, 1983a) I have suggested that the 30 per cent paid to areas affected was both a direct compensation payment and also a revenue - like share of mineral rent. The 70 per cent paid outside areas affected was made with redistribution and broad compensatory principles in mind. Woodward noted (1974:114) that the 30/40/30 division is completely arbitrary. But it was nonetheless influenced by submissions to the Commission and by discussions with Yirrkala Aborigines who were not satisfied with their 10 per cent share of NABALCO royalties.

There were few specific recommendations in Woodward's second report regarding the utilisation of mining royalties. Woodward saw great merit in Land Councils having a substantial source of income independent of government approval. Nonetheless, these moneys have to be spent on the proposed statutory functions of Land Councils, whose budgets were to be approved by the Minister for Aboriginal Affairs. No guidelines were provided for the expenditure of 60 per cent of mining royalties paid to affected communities and the ABTF. Woodward made it clear though, that statutory royalties were not to be paid to individuals, but were intended for collective community benefit. It is not clear whether Woodward assumed that the ABTF would continue to operate as it had to 1974 or whether (as hinted in paragraph 609 of his report) he saw it as an autonomous body, free to distribute 30 per cent of royalties as it saw fit.

Most of Woodward's general royalty related recommendations were incorporated in the Liberal-National Country Party land rights legislation. In S.64 of the Act, 30 per cent of statutory royalties were reserved for the use of communities in areas affected by mining operations, and 40 per cent for the administration expenses of Land Councils. In sub-section 64(4) of the Act, residual amounts could be paid to or for the benefit of Aborigines living in the NT. In S.35 it was specified for what purposes Land Councils' receipts must be applied.

The legislation diverged somewhat from Woodward's recommendations in a number of ways. Firstly, Woodward suggested that Land Councils should act as royalty clearing houses, but in the legislation, the Aboriginals Benefit Trust Account or ABTA is created and entrusted with this role. Secondly, Woodward defined communities in areas affected by mining operations as those within a 60 kilometre radius of a mine site. In the legislation, areas affected are undefined. Thirdly, residual moneys remaining with the ABTA are not a specified proportion of mining royalties like the 30 per cent Woodward recommended. Furthermore, the responsibility for the distribution of these moneys is at the direction of the Minister for Aboriginal Affairs advised by an all-Aboriginal Advisory Committee. Hence in the Act, 70 per cent of mining royalties are ministerially-controlled.

The most significant departure from Woodward's 30/40/30 formula occurred in 1979, when by an amendment act, S. 64(7) was included in the Act. This amendment allowed the Minister to direct additional royalties to be paid to Land Councils when 40 per cent of royalties did not meet the cost of their Ministerially approved budgets. These moneys were to be paid from the residual (30 per cent) held by the ABTA [1].

Royalties received and Distributed, 1978-1983

In Table 1, data on ABTA income and expenditure from 1978/79 to 1982/83 are presented. While the receipts of the ABTA are generally referred to as royalties, these moneys are in fact grants in lieu of royalties raised on Aboriginal land paid from Commonwealth consolidated revenue. In Table 2, data on these grants paid in respect of the four paying mining agreements are presented. Data in Table 2 are on an accrual basis (payment in respect of a particular financial year) while those in Table 1 are on a cash flow basis (payment during a particular financial year).

1978/79 was a transitional year when the ABTF was abolished and its assets and liabilities transferred to the ABTA. Hence while (in Table 1) the expenditure of the ABTA exceeded its income by over $1 million in this year, net reserves at the start of the 1979/80 financial year totalled $3.5 million.

In each year from 1978/79, 30 per cent of royalty income has been transferred to incorporated bodies in areas affected by mining operations. To date, all these transfers have been via the Northern Land Council, as all producing mines are in its region. Thirty per cent of GEMCO, Ranger and Queensland Mines royalties paid to the ABTA have been transferred to the Groote Eylandt Aboriginal Trust (GEAT), Gagudju Association and Kunwinjku Association respectively. NABALCO royalties have been divided 50/50 since 1978/79 between two royalty associations in the Gove region - the Dhanbul and Gumaitj Associations.

From 1978/79 onwards, Land Councils have received a disproportionate share of royalties, as 40 per cent of statutory receipts did not cover their ministerially - approved budgets. In 1978/79, the NLC and CLC received grants totalling $590,000 from the ABTA and a loan of $200,000 from consolidated revenue. After the 1979 amendment to the Act, the Minister for Aboriginal Affairs could direct residual ABTA funds to the Land Councils. Hence from 1979/80 to 1982/83, Land Councils have utilised 66 per cent, 49 per cent, 66 per cent and 42 per cent of the ABTA's royalty receipts for each financial year respectively.

In 1978/79 and 1979/80, the ABTA carried over a number of loans and grants approved by the ABTF. In those two years, new grants recommended by the ABTA Advisory Committee and approved by the Minister's delegate totalled 14 per cent and 10 per cent of royalty receipts per annum. In the three years 1980/81, 1981/82 and 1982/83 (see Table 1) total grants accounted for only 12 per cent, 15 per cent and 4 per cent of royalty receipts per annum. This low operational profile of the ABTA granting system was due to three main factors. Firstly, there are no guidelines in the Act which state what proportion of its income the ABTA should grant. Secondly, supplementary funding of Land Councils has eroded the amounts available for granting. Furthermore, between 1978/79 and 1980/81, Land Councils were required to borrow an additional $1.6 million from consolidated revenue and are liable to repay these loans. Finally, the ABTA Secretariat has followed a cautious financial policy. This is evidenced by the fact that by June 1983, the ABTA held reserves that exceed $7 million.

The first five years: major achievements and major problems

Since 1st July 1978, royalties have been distributed by the ABTA to two types of Aboriginal bodies: Land Councils, and via Land Councils, royalty associations in areas affected by mining. To what extent have these bodies utilised mining moneys for Aboriginal economic development?

Despite the fact that Land Councils' administrative costs have escalated rapidly, these bodies have been successful in their principal function: to assist Aborigines claim unalienated Crown Land in the NT. In Table 3, data on land converted to Aboriginal freehold title to November 1983 are presented. Given that land was envisaged by Woodward as the first essential for Aboriginal economic advancement, the significance of these land grants should not be underestimated. In total, since 1977, an additional 172,418 square kilometres has been transferred to inalienable Aboriginal title.

The operations of the five royalty associations incorporated to date and receiving affected communities moneys are diverse and have been reviewed elsewhere (Altman, 1983:110-139). The differences between associations in terms of size, location, royalty income, date of incorporation and economic opportunities available, do not make them strictly comparable. In my opinion, the Gagudju Association has been most effective. The operations of this association have been evaluated in detail elsewhere (Stanley, 1982; Altman 1983); here some key features of its success will be summarised.

The Gagudju Association follows sound and balanced expenditure, financial and investment policies. The association has furthermore maintained a degree of autonomy from federal and NT governments, and the NLC, yet has remained accountable to its members. Decision-making regarding monetary matters is made at large-scale meetings by consensus between members. The association has utilised royalties in a number of ways: 1. To provide services (like housing, outstation support, education and health) tailored to the needs of its members. 2. To provide limited (to $1000 per annum per member) cash payouts to individuals. 3. To invest in business ventures in the Kakadu region, particularly in the tourist industry. The association has procured and renovated Cooinda Hotel/Motel and operates the Border Store and the Coondjimba Hostel in Jabiru. The association also runs a construction company. 4. To invest funds in a Children's Trust for the future use of juvenile members. The association is using royalty receipts to develop the land and is moving to longer term self-sufficiency via its business investments. Association members are the only shareholders in these companies, and committee members are company directors. It is important to note that capital accumulation is facilitated in the Gagudju case by the relatively high receipts of the association - during its first four years of operation it has received about $6000 per member per annum from royalties, rentals and up-front payments - a total of about $7 million [2]. Furthermore, the association has limited its membership to about 300 people, although it does provide services to all residents of outstations in Kakadu National Park. But compared with other royalty associations, the Gagudju Association is somewhat atypical precisely because of its location: its members live primarily in the national park which is intended (see Fox et al., 1977) as a buffer zone between Euro-Australians and Aborigines. The popularity of the park has created business opportunities in tourism in which the Association has invested. In contrast for example, the GEAT has also followed sound financial policy and only expends 50 per cent of its royalty income. To date, the GEAT has accumulated over $6 million, but these moneys are not invested in the Groote Eylandt region. This is partly due to the fact that the GEAT follows a conservative investment policy and partly to the fact that limited potentially profitable economic opportunities exist at Groote, remotely located and on the extreme periphery of the Euro-Australian economy.

As already noted, the ABTA has had a low operational profile in its granting activities. In fact by the end of the 1982/83 financial year the grants of the ABTA were not as significant as the average annual grants of its predecessor, the ABTF, over its final five years (1972/73-1977/78). In the current financial year, the ABTA Advisory Committee has taken a more aggressive granting role and already over $3 million in grants has been approved. A review of ABTA grants to the end of 1982 indicated that the average grant was $12,000 and that 75 per cent of grants were used to procure vehicles or boats for Aboriginal communities (Altman, 1983:79-82).

I now turn to examine three broad problem areas that have arisen in the past five years.

1. In 1974, Woodward was provided with an estimate for Land Council operational expenses of $300,000 per annum per Council (Woodward, 1974:69). This was approximately 40 per cent of 1974/75 ABTF royalty receipts, assuming only two Land Councils are in operation. By 1982/83 the budgets of the three Land Councils was almost 10 times this estimate. This is not a problem per se, and as Land Councils have a number of statutory functions to perform they are expensive to run. What has been problematic is that budgets have consistently exceeded 40 per cent of annual royalty receipts. With supplementary funding, the budgets of Land Councils have not been curtailed, but the redistribution role of Woodward's 30/40/30 formula has been undermined. In the Act, the proportion of royalties distributed Territory-wide is both residual and at ministerial discretion. The undermining of this crucial redistributive role by supplementary funding and the cautious financial policy of the ABTA Secretariat and DAA have exacerbated apparent differences in access to cash between Aborigines in areas affected by mining and Aborigines elsewhere in the NT.

2. A number of royalty associations have had difficulty in either devising or sustaining sound financial and investment policies. In particular, there

seems to be some lack of appreciation of the potential for both autonomy and self-sufficiency that royalty income offers to areas affected. The reasons for this apparent shortsightedness are complex. Two key factors are the continuing pressures to distribute association income to individuals and the continuing role of government community subsidisation. The former is particularly understandable given the low per capita cash incomes at Aboriginal communities in general. But such payouts to individuals will result in royalty dependency which is radically different from self-sufficiency and no lasting effects evident from royalty income. It is for these reasons that Woodward recommended that royalty receipts be used for collective community benefit.

3. The intended role of the ABTA in Aboriginal economic advancement seems quite unresolved. To prove effective, the ABTA must act as an institution that facilitates capital accumulation and funds large scale regional or Territory-wide projects. Due to a shortcoming in the land rights legislation, the investments of the ABTA are constrained by S.62 of the Audit Act. This means that the Trust Account must invest its accumulated funds in government guaranteed securities. While these investments return a reliable income to the ABTA, accumulated funds could be better invested to specifically serve Aboriginal economic and political interests. The ABTA Advisory Committee seems to be under pressure to distribute grants to small groups (the ABTA only makes grants to individuals in special circumstances) for community purposes. The current granting mechanism requires groups to apply for funds. To date, there appears to be no regional amalgamation of groups who could apply for large grants for regional enterprises.

Wider issues and future policies

In the last five years, $37 million has flowed to the ABTA from mining royalties for the use of Aborigines. While it is extremely difficult to forecast royalty streams, it seems likely that when the Palm Valley gas project and Mereenie oil fields become productive in 1985, about $25 million per annum in total will be paid to the ABTA [3]. While it is still too early to categorically state whether there has been a structural change in the economic position of Aborigines vis-a-vis others in the NT, the question addressed here is how royalties can best be utilised to improve Aboriginal economic status in the future. To do this, I start by making three assumptions:

1. That Aborigines as an identifiable ethnic group are relatively badly off in the NT. This fact has been documented in a number of recent studies including Young (1981 and 1982) and Stanley (1983). 1981 census data (DAA, 1983) indicate that in the NT median Aboriginal family income is only 32.5 per cent of Euro-Australian family income.

2. That Aborigines want to alter this state of affairs but do not necessarily want to partake in the Euro-Australian economic system as employees, nor are they willing to allow unrestricted occupation of Aboriginal land by mining and/or tourist interests.

3. That from 1983/84, the 30/40/30 formula will operate. 40 per cent will go to Land Councils to claim land, negotiate with mining interests, etc. This will leave 60 per cent (or $15 million from 1985) to be paid to affected communities and for wider distribution throughout the NT.

I conclude by addressing three main issues with future policy implications. Firstly, there is no discussion in Woodward's final report (1974), or in the land rights legislation, of the relationship between royalties and normal government expenditure on Aborigines. In Canada, for example, where indigenous minorities also benefit from royalty payments, government expenditure levels are both guaranteed and inflation-proofed. As I have suggested elsewhere (Altman 1983a), in Australia the potential exists for both NT and federal governments to renege on legitimate expenditure on Aborigines because the intended role of royalties remains undefined. To have a long term impact royalties must be paid on top of normal government expenditure - both to Aborigines as Australian citizens and (via the DAA, ADC, etc) as part of affirmative action in favour of

Aborigines. As Peterson (1983:8) notes, royalties should be the icing on the collective cake, the cake being paid for by government. It is imperative that royalty associations do not subsidise normal government responsibilities because service delivery is not appropriate to Aboriginal needs; Associations should lobby for services tailored for Aborigines.

Secondly, it seems essential that royalty associations should not distribute moneys to individuals; or if such distributions are made, they should be extremely limited. Similarly, the ABTA Advisory Committee should not continue to make small grants to groups on the basis of need. Given the extremely low income status of Aborigines, royalties remain one of the few relatively autonomous avenues for the collective accumulation of capital.

Thirdly, it is important that accumulated funds are utilised in creative ways that will both increase Aboriginal political power and generate income to improve long-term economic status. Valuable lessons can already be learnt from the Gagudju Association. This body has invested royalty income on tourist facilities on Aboriginal land. It has also invested in other business enterprises. In this way it has gained leverage in the regional political economy and has taken steps towards financial self-sufficiency. There are a range of other large scale enterprises in which Aborigines can invest: the marketing of art and craft; the servicing of Aboriginal communities and Aboriginal pastoral interests; communications; wholesaling; etc.

In his budget speech for 1983/84, Mr Perron noted that the economic development of the NT is dependent on a) mining b) tourism and c) import-substituting agriculture. If the structural position of Aborigines is going to alter, it seems important for them to share in this economic development. In particular, with capital, Aborigines can gain control and ownership of tourist facilities, hotels and convention centres. There are also opportunities for the ABTA or royalty associations to invest in real estate, as the ADC has done by procuring Bonner House in Canberra.

In the final analysis, it is essential to bear in mind Woodward's guiding principle of Aboriginal self-determination. Self-determination means that Aborigines must choose their own path of economic advancement; academics can only give advice regarding the consequences of different paths. But Aborigines, as Woodward noted, are also accountable: not so much, in my opinion to the Australian public as to current and future generations of Aborigines. This then seems to be the crux of self-determination: Aborigines should be free to make their own decisions, they must, however, also be accountable for making the wrong decisions.

Footnotes

1. A further administrative change occurred by the time the royalty-related functions of the Act became operational. After the passage of the Northern Territory (Self-Government) Act, 1978, a Memorandum of Understanding in respect of financial arrangements was signed between the Commonwealth and the self-governing NT (Commonwealth of Australia, 1978). This resulted in royalties raised from non-uranium mining on Aboriginal land being paid directly to the NT Department of Mines and Energy. The ABTA received grants in lieu of royalties raised on Aboriginal land paid out of Commonwealth consolidated revenue.

2. To provide capital at this level for all NT Aborigines would require $174 million per annum.

3. Assuming that Nabarlek and Ranger uranium mines are fully utilised and that Queensland Mines and ERA get new export contracts from the federal government. Furthermore it is assumed that the North Flinders Goldmine in the Granites will not be productive before 1985 and that mining at the Jabiluka and Koongarra uranium mines does not proceed.

TABLE 1

ABTA income and expenditure, 1978/79 to 1982/83

	1978/79 ($)	1979/80 ($)	1980/81 ($)	1981/82 ($)	1982/83 ($)
INCOME					
Royalties S.63(2)	1,135,820	2,084,072	4,097,593	5,785,078	17,611,522
Interest on Investment S.62(3)	138,454	154,025	168,108	317,048	643,344
Other Receipts S.62a(4)	936,346	219,243	121,499	79,717	45,176
Miscellaneous Receipts S.63(5a)	5,579	928	1,940	1,550	17,627
TOTAL INCOME	2,216,199	2,458,269	4,389,500	6,183,393	18,317,669
EXPENDITURE					
Payments to Land Councils S.64(1)	454,328	834,329	1,639,181	2,314,031	7,044,609
Payments to Land Councils S.63(3)	340,747	625,222	1,229,386	1,735,523	5,283,457
Payments to Land Councils S.64(7)		549,823	353,613	1,489,152	321,569
Grants S.64(4)	2,481,695**	1,094,590	500,713	871,277	659,582
Payments for S.64(5)	4,091	2,810	9,729	12,164	18,204
TOTAL EXPENDITURE	3,280,861	3,116,773	3,732,622	6,422,148	13,327,421
BALANCE AT 30TH JUNE	2,388,769	1,730,264	2,387,142	2,148,287	7,138,635

* A major item here (approx. $756,000) is for royalties payable to the ABTF for the period 1977/78 and transferred to the ABTA after 1st July 1978.

** Of this $590,000 was to land councils to meet their administrative expenses. This transfer under S.64(4) was not legal according to the Attorney-Generals office and in 1979 the Act was amended so that supplementary funding could be provided.

Sources: Reports of the Auditor-General for the years ended 30 June 1979, 1980, 1981, 1982 and 1983.

TABLE 2

Grants in Lieu of Statutory Royalties

Paid to the ABTA (on an accrual basis) - 1.7.78 to 30.6.83.

PERIOD	PAYMENTS IN LIEU OF ROYALTIES IN RESPECT OF:				
	NABALCO ($)	GEMCO ($)	QML ($)	ERA ($)	TOTAL ($)
1978/79	855,548	1,118,184	-	-	1,973,732
1979/80	942,631	1,272,233	-	-	2,214,864
1980/81	1,297,334	1,039,975	2,314,798	-	4,652,105
1981/82	1,696,377	1,300,699	620,666	6,185,541	9,802,283
1982/83	4,793,263*	1,189,368	1,410,348	12,369,382	19,762,361

* Of the NABALCO royalties, $2,956,688 is a once-only ex gratia payment made in respect of an upward adjustment in the royalty rate since 1st January 1979.

TABLE 3

Aboriginal Freehold Land in the Northern Territory, to November 1983.

	AREA (SQUARE KMS)	PERCENTAGE OF TOTAL AREA OF THE NT
Schedule 1 Land Granted 26th January 1977	256,667	19.1
Land Granted to November 1983, Title Transferred	105,198	7.8
Land granted, Approved, Under Survey	66,415	4.9
Land granted, awaiting ministerial approval	805	0.1
TOTAL	429,085	31.9
Awaiting Land Claim Hearing	176,719	13.1

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TRANSPORT AND THE NORTH AUSTRALIAN ECONOMY

LARRY BANNISTER*

Transport Economics and the Northern Economy

It has become a cliche to refer to the derived nature of demand for transport when this issue is discussed in an economic forum. While the concept is an important one, it is equally important to attempt to enlarge on the theory, and then to place it in some actual context.

A relatively early reference to the concept, at least in the recent past, was by Munby (1968). It may be summarised that the demand for transport is derived from the factors of production and consumption. The general principle here is that transport facilitates but does not generate economic growth per se.

Once a transport corridor has been established, subsequent economic growth is produced by the demand for a factor of production. The transport system is independent of this process, acting merely as a servicing agent.

The paper, then, is concerned primarily with Northern Territory transport with particular reference to the inter-relationship of the Territory with the rest of Australia, rather than addressing purely internal issues.

In discussing transport and the northern economy, more often than not the subject turns towards the developmental use of transport in expanding the economy. A 'supply strategy' (Friedmann and Stuckey, 1975) is proposed whereby the supply of transport infrastructure is expected to generate demand. In this sense the derived demand concept is breached, at least temporarily, with transport actually generating economic growth directly.

To understand this a third element must be introduced in addition to economics and transport, that of space or location. Thus, the provision of transport infrastructure, and by implication of transport, precedes the demand for a factor of production occurring in the immediately affected area of the transport corridor. An example of this is that the provision of a railway between Alice Springs and Darwin will make economic the mining and marketing of limestone in the Mataranka district (Northern Territory Government, 1983).

Where the supply of transport precedes (latent) demand, an immediate and discontinuous jump in development occurs, with the derived demand principle coming into play subsequent to this jump in development.

The supply strategy approach to the development of northern Australia is best exemplified by the Alice Springs to Darwin railway and the redevelopment of the Port of Darwin. Needless to say it would be incorrect for governments or the community to expect these projects to generate economic growth. Once operational, new transport technology will facilitate growth with the basic sectors of the economy - mining, agriculture and manufacturing - making the most important contributions to generating growth.

So it seems relevant to understand the structure of the northern economy, and more particularly the Northern Territory economy, before examining transport developments in Australia's north. It is, however, difficult to find a consistent set of statistics that accurately reflect the size and diversity of the economy, and this remains an area of great need for the Northern Territory.

The Northern Territory is included in tables with South Australia for national accounting purposes (see, for example, Australian Bureau of Statistics, 1983). Researchers have had to resort to estimating Territory indicators of economic activity by separating such statistics as gross operating surplus, value added and so on, from the combined tables, in order to gauge the size of the economy.

Morison and West have approached the estimation of the expenditure side and produced a 17 sector transactions table for the Territory in 1980-81.

The transaction table shows that total sales of goods and services, including exports but excluding imports, in 1980-81 was around $2000 million (Morison and West, 1983, p.9). If the estimation included final sales only, then it could be said $2000 million represents a reasonable estimate of Territory Gross Domestic Product (GDP) in 1980-81. However, the estimate also includes imtermediate sales and therefore the size of the Territory's economy in 1980-81 must have been somewhat less than $2000 million. (GDP nationally in 1980-81 was $131 thousand million (current prices). One measure of GDP is gross expenditure plus exports minus imports).

A second source of information is from the work of the Institute of Applied Economic and Social Research. The Institute is in the middle of developing estimates of economic activity in the Territory as part of its development of the State Module under the Institute Multi-Purpose (IMP) model. Early estimates from this work suggest that for gross non-farm product only, the Territory's GDP was $1500 million in 1981-82. Nationally, gross non-farm product is around 95 per cent of total GDP. This is 1.1 per cent of national GDP (gross non-farm product) in that year. Unfortunately the work i still being developed and only available to clients of the IMP model.

The size of the Territory economy in relation to the nation is small. Key sectors are noted in Table 1 and include mining, building and construction, agriculture, tourism and government.

The data provided in Table 1 is not additive since the definition of indicators is not consistent between sectors.

TABLE 1

Indicators of Economic Activity in the Northern Territory, 1981-82.

	($M)
Gross Value of Production	
Agriculture	55.6
Fishing	18.3
Mining	562.7
Value of Work Done	
Building and Construction	192.4
Expenditure on Goods and Services	
Tourism	87.0
Receipts	
N.T. Government	746.6
Gross Domestic Product	
(gross non-farm product only)	
Northern Territory	1541
Australia	140322
	(000's persons)
Population	
Northern Territory	129
Australia	15178

Source : Northern Territory Department of the Treasury

The Territory's contribution to GDP nationally of just over 1 per cent would place the current size of the Territory economy at around $2000 million, compared to an estimated national GDP in 1983-84 of $178,000 million (Commonwealth of Australia, 1983). Table 1 indicates the most important industries are mining and government.

Indeed, government receipts relative to the size of the economy show that they were slightly less than half the estimated Territory GDP in 1981-82. With receipts estimated at $1000 million in 1983-84, in proportional terms this again is about half Territory GDP estimated for 1983-84.

Table 2 gives some indication of the relative size of the private and public sectors. Its most salient feature is the dominance of Territory and Commonwealth project expenditure already committed. Private sector project expenditure is lagging behind public expenditure, some of which will become committed when demand improves, and some of which is constrained by public sector policies and project expenditure. A recent report by the Territory Government pointed out that economic development has been constrained recently by export permits, availability of land for exploration and inadequate infrastructure, all of which can be eased by changes in Commonwealth Government policies (Northern Territory Government, 1983).

One further comment is perhaps useful in relation to Government finances before turning to a more detailed examination of transport issues. Political changes to the administration of the Northern Territory have played a part in recent developments. While these changes have not directly affected transport, they have had a fundamental influence on regional development in Northern Australia, and hence on transport.

TABLE 2

Committed and Planned Expenditure on Major Projects by the Private and Public Sectors. Northern Territory.

Sector	Committed ($M)	Committed (%)	Planned ($M)	Planned (%)
Private	172	9.9	2009(1)	67.0
Private/Government Joint Project	783	45.0		
Northern Territory Government	681	39.1	173	5.8
Commonwealth Government	104	6.0	817(2)	27.2
TOTAL	1740	100.0	2999	100.0

Notes: (1) Includes $1000M as the estimated cost of developing a large silver, lead and zinc deposit at McArthur River.

(2) Includes $600M for the Alice Springs-Darwin railway and $163M for direct defence expenditure on Tindal Air Force Base near Katherine.

Source: Northern Territory Development Corporation, 1983.

Arguably the most important element of this change in political structure has been the Memorandum of Understanding on financial arrangements between the Commonwealth and Territory Governments (Commonwealth of Australia, 1978). The Memorandum allows Commonwealth funding of the Territory to be determined separately from the needs of the States, and has a clause which links funding to the Territory with population growth.

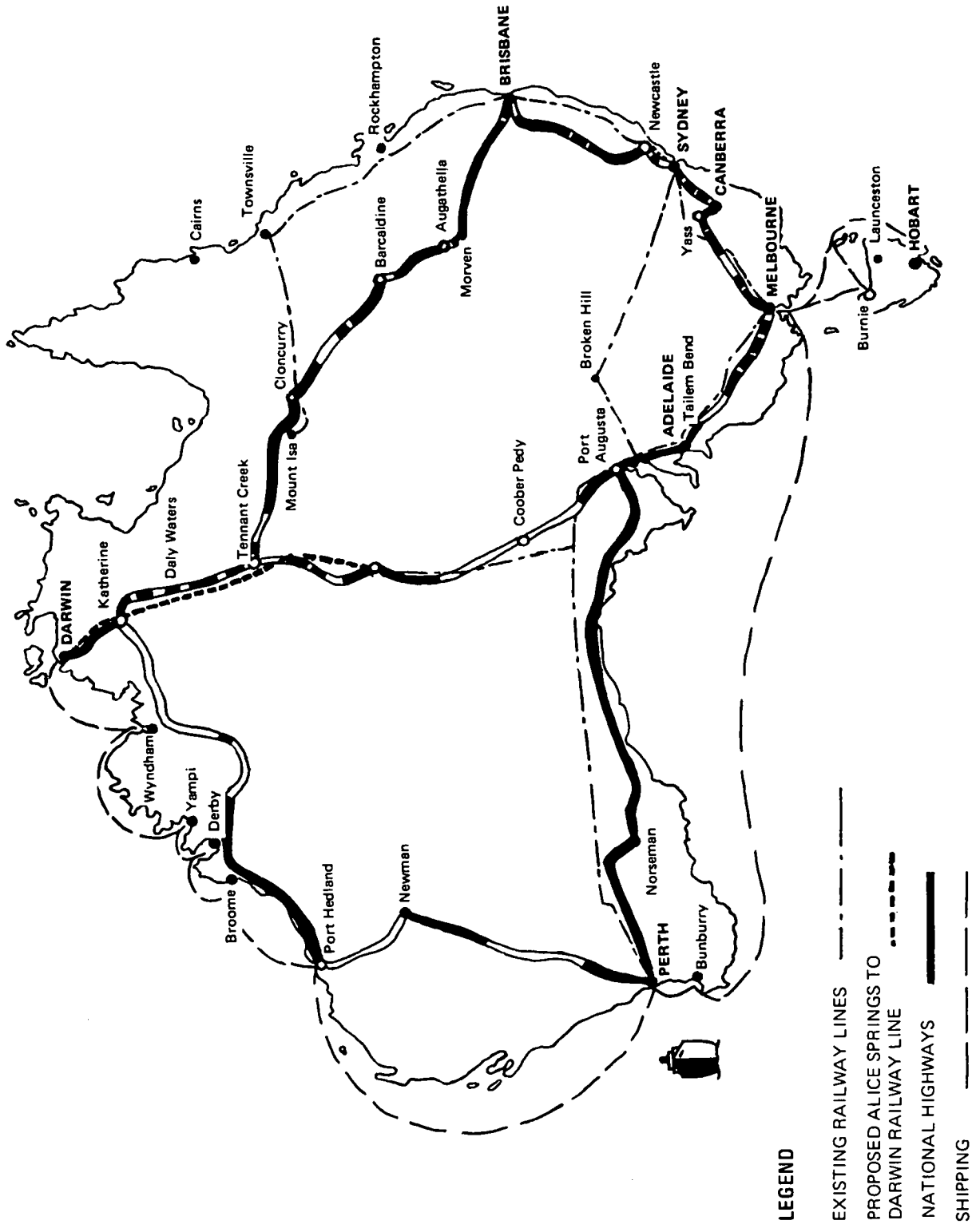
While this agreement has its opponents at the national level, for as long as

it remains in place it represents a firm commitment and expression of confidence in northern development on the part of the Commonwealth Government, since the Memorandum underpins and indeed encourages a more rapid growth in population than might otherwise occur. It is an indisputable proposition that the most valuable resource of Australia's sparsely populated northern region is people.

Structure of Transport

Despite or because of a small and dispersed population, transport plays a key role in the Territory's economy and its prospects for further development. Compared with the States, the transport system is limited in the service it can provide. The central corridor is its major feature, with the Stuart Highway and the Tarcoola-Alice Springs railway linking the Northern Territory with South Australia (see Map A).

MAP A : NORTH AUSTRALIAN TRANSPORT



The administrative capital of Darwin relies on road alone for the supply of essential goods and services from the major source, South Eastern Australia. The last 300 kilometres of the journey is a single road corridor with no other alternative route. All national highways linking the Territory with the rest of Australia are subject to flooding.

The vulnerability of Darwin to even minor disruption in transport services is unprecedented when compared to mainland cities of comparable size elsewhere in Australia. Thus the central road corridor is of critical importance to the social and economic well-being of the Top End, and indeed to the whole of the Northern Territory.

The central corridor also serves to integrate the regions within the Territory. It is interesting to note that if history had been different, transport could have served to polarise the northern and southern regions. In 1945, the Clapp report recommended to the Commonwealth Government that Darwin be serviced by a railway via the Barkly Tableland and Bourke and thence on to the Eastern seaboard (Commonwealth of Australia, 1945). If this recommendation had been acted upon under the then national rail standardisation program, Darwin's major focus would today be Sydney, and Alice Springs would be serviced by Adelaide.

This example underscores the importance of transport to a small regional economy like the Northern Territory. With planning for a transcontinental railway centred on the Darwin-Adelaide axis, the economic and social integration of the Territory is assured.

Current transport mode-options in the central corridor are either road direct (Stuart Highway), rail (into Alice Springs only) or road-rail. For the eastern corridor, freight may move by road direct (via the Barkly-Stuart Highways), or road-rail (rail to Mt Isa then road). Western corridor freight has two alternatives, either by sea or road transport (via the Victoria-Stuart Highways).

One public port for general cargo movements exists in the Territory at Darwin. There are also two private ports at Gove (Nhulunbuy) and Groote Eylandt, serviced by barge from Darwin and John Burke Shipping from Queensland.

In 1982-83, 1.6 million tonnes of freight moved into the Northern Territory and 4.3 million tonnes were shipped out (see Table 3). More than two thirds of all freight moved to the Northern Territory is from overseas, and almost all of this is petroleum. Freight into the Northern Territory from domestic sources is moved mainly through the central corridor.

TABLE 3

Estimates of Freight Movements to and from the Northern Territory 1982-83 (000's tonnes)

Corridor	Mode Road	Road-Rail(1)	Sea	Total
To Northern Territory				
Central	33	225	21 (2)	279
Eastern	112 (3)	-	41 (4)	153
Western	16	-	86	102
Overseas	-	-	1,086	1,086
TOTAL	161	225	1,234	1,620
From Northern Territory				
Central	14	29	-	43
Eastern	60	-	360	420
Western	12	-	4	16
Overseas	-	-	3,863	3,863
TOTAL	86	29	4,227	4,342

NOTES (1) Includes rail direct to Alice Springs
(2) Darwin to Gove and Groote Eylandt
(3) Includes some rail to Mt Isa then road
(4) The East Coast Shipping Service was terminated in January 1984.

Source: Department of Transport and Works.

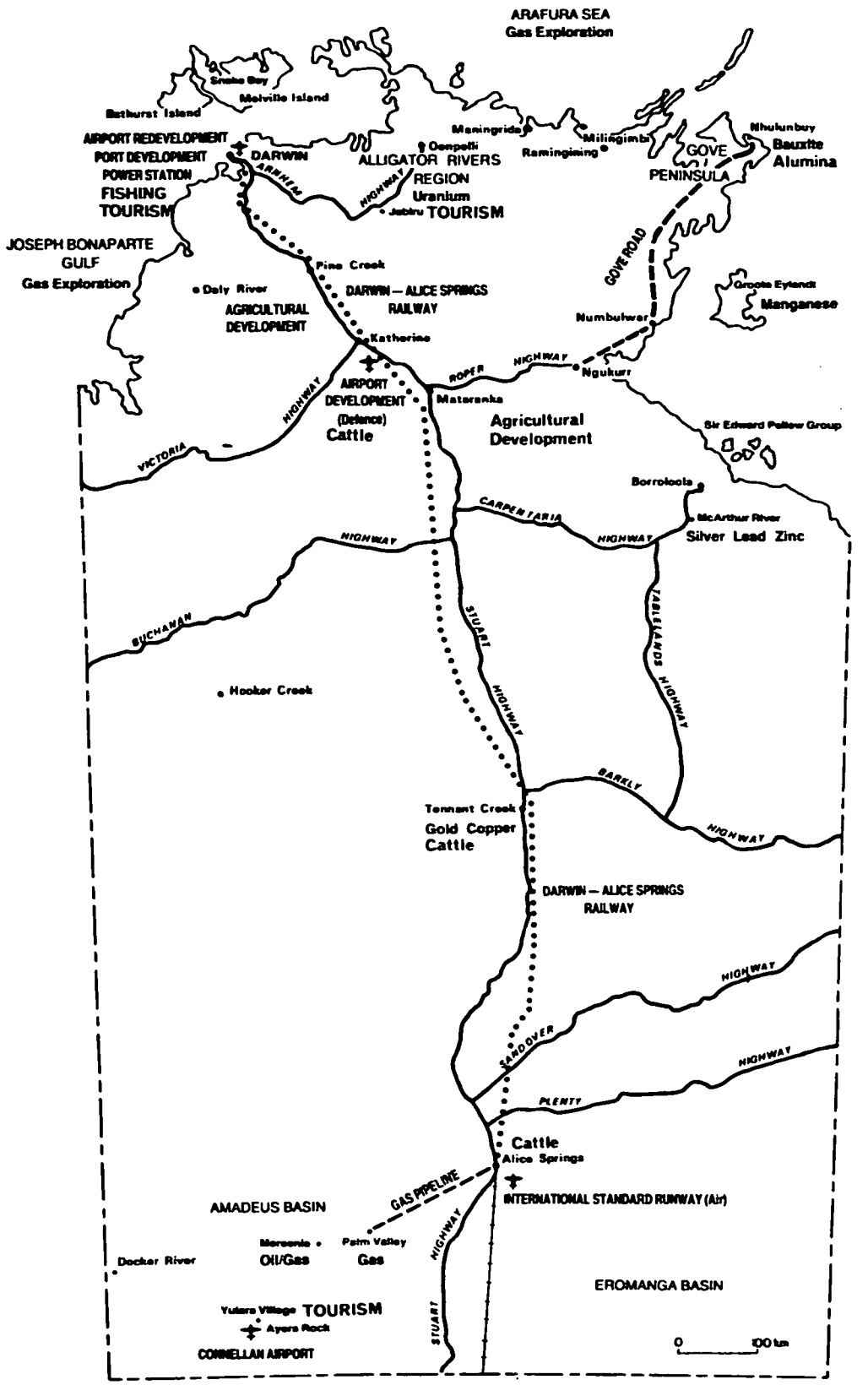
This corridor accounts for just under 50 per cent of the total movement of freight into the Northern Territory from domestic sources. Rail or rail/road combination is the most preferred mode of transport in the central corridor, making up at least 85 per cent of total inbound movements through that corridor.

Outbound freight is dominated by the export of alumina and bauxite from Gove. Freight destined for domestic markets travels mostly by road along the eastern corridor.

For non-bulk freight there is a severe imbalance between inbound and outbound freight, a pattern typical of a newly developing region. Map B shows economic activities in relation to transport for the Northern Territory.

MAP B : NORTHERN TERRITORY OF AUSTRALIA –

EXISTING AND PLANNED TRANSPORT AND RESOURCE DEVELOPMENTS



Road transport is privately owned with all national freight forwarders represented in the Territory. Rail and coastal shipping are Government controlled, while most airlines are privately owned apart from one major domestic carrier, TAA, and one international carrier, Qantas, both of which are controlled by the Commonwealth Government.

Current and Future Developments

In the second half of 1983 the Northern Territory entered a watershed in its future direction for transport. Three Inquiries were sitting. These were:

Northern Territory Inquiry into Freight and Related Costs (Williams Inquiry).

National Road Freight Industry Inquiry (May Inquiry)

Independent Economic Inquiry into Transport Services to the Northern Territory (Hill Inquiry)

In addition, the Commonwealth controlled East Coast Shipping Service between Australia's eastern seaboard and Darwin was about to be withdrawn unless a suitable financial arrangement could be worked out between the Commonwealth and Northern Territory Governments.

The Territory is beginning to emerge from this watershed in rather worse condition than when it went into it.

In early 1983 the Commonwealth had made a firm commitment to build the Alice Springs-Darwin railway by 1988 (the intention to proceed was confirmed by the then Opposition during the Federal election campaign of 1983), the East Coast Shipping Service was in place, and there was a firm Commonwealth commitment to redevelop civilian facilities at Darwin airport. By early 1984 the only commitment still intact was the redevelopment of Darwin airport.

The most eventful Inquiry for the Northern Territory has been the Hill Inquiry, concerned with the Alice Springs to Darwin railway, among other measures. The Northern Territory's submission argued strongly for the construction of a railway, providing comprehensive documentation to support its case on social, financial, environmental and defence grounds (Northern Territory Government, 1983).

It was important that the Commonwealth had asked for an assessment of the railway within the context of the Government's social audit policy in relation to transport (Australian Labor Party, 1982). The policy calls for the asssessment of transport projects taking account of social, economic, resource, environmental and defence implications. The Alice Springs to Darwin railway represented the first major project to be assessed under this policy.

In financial terms the Territory's submission found the railway would achieve an internal rate of return on investment of just over 10 per cent per annum. Alternatively, the project would achieve a return on investment of $340M (1984 prices) in net present value terms for a discount rate of 7 per cent per annum over an assessment period of 40 years. (Internal rate of return is the rate of discount which equates the present value of a project's cost and benefit streams over its economic life. The net present value (NPV) of a project is the difference between the present value of a project's benefit and cost streams over its economic life arrived at by discounting at an appropriate discount rate. At such a discount rate, the present value of new benefits of the project must not be negative. Also, the NPV of the project considered for financing is required to be positive and higher than, or at least equal to, the NPV of mutually exclusive project alternatives. In the NT Submission, a 'with rail' case and a 'without rail' case were assumed for project appraisal). The submission argued that in financial terms alone, the project was justified.

With regard to the other aspects of the social audit policy, the Northern Territory's submission is a recognition that governments are placing emphasis increasingly on equity appraisal. This is done by qualitative analysis of a project's socio-economic characteristics, including direct, indirect (and permanent) employment, labour training, environment, national interest and defence.

With a railway, the submission argued the key mining and rural sections of the economy would receive immediate benefits through lower transport costs. Both sectors are best served by high bulk-long haul transport, an area where rail is superior to road in terms of economic efficiency (see, for example, ARRDO, 1981). There would also be an immediate jump in new projects. Some of these projects are not viable with current transport costs, but would be viable if rail were available. Projects making up this latent demand include Frances Creek (iron ore), Dorisvale (barytes), Mataranka (limestone), Wonarah (phosphate), and Renner Springs (manganese). Exploration is also expected to be given a considerable boost.

The potential for increased international trade through the Port of Darwin remains with or without a railway, but the high bulk, long haul abilities of a railway would enhance this potential considerably. The Port of Darwin has passed through a steady modernisation period from 1978 until 1983. The port now has a new wharf, roll on-roll off facility and container crane. The final segment of work yet to be completed is landbacking to the new Fort Hill wharf to create a large container park area.

The port is ideally placed to service the development of northern Australia, and for freight forwarders to take advantage of the backloading opportunities that exist in Australia's north because of the imbalance in freight demand referred to earlier. The new trade route created by a modern port and enhanced by a railway is a real alternative to sea with no comparable shipping service competing directly with the central corridor, unlike the east-west corridor from Perth to the Eastern States.

The submission noted social advantages of the railway included a reduction in isolation relative to the rest of the nation by broadening the transport base, thus easing reliance on a narrow choice of mode. The political evolution of the Territory would be further advanced, with the railway providing a fundamental component to allow the region to be less reliant on funding from the Commonwealth, that is, to be increasingly self-reliant.

Arguments were also put before the Inquiry relating to a reduction in the cost of living, fewer road accidents, minimal environmental impact, and boosting Australia's continental defence preparedness with a railway in place (Northern Territory Government, 1983).

The Hill Inquiry received around 100 submission in favour of the railway, out of a total of 112 submissions. In assessing these submissions, the Inquiry saw its work resulting in one of four recommendations.

(i) that the Alice Springs-Darwin railway be built by 1992, and there be an accelerated upgrading of the Stuart Highway within the Northern Territory by 1987

(ii) that the railway be constructed but no accelerated road upgrading occur

(iii) that railway construction not occur but the accelerated road upgrading take place

(iv) that neither project be undertaken.

The Inquiry has recommended the fourth alternative. In doing so the Inquiry conceded that the social benefits with the upgraded road program would improve the case for acceleration. But even here the report is ambivalent in its recommendations.

> However, the case for the faster road upgrading may not be as strong as the case for speeding up work on other roads in and leading to the Northern Territory (Hill, 1984, p19).

The Inquiry added a further rider:

> A major factor that could alter this assessment of the railway in the future would be the emergence of significantly higher tonnages of bulk minerals than is currently evident (Hill, 1984, p. 16).

Clearly, the essential findings of the Inquiry are particularly harsh for the immediate future of the Northern Territory. However, the final rider quoted above has a suggestion of 'may be but not yet' about it.

The Northern Territory has been critical of the methodology employed by the Hill Inquiry, specifically the corridor assessment of costs and benefits rather than national assessment, and in the areas of forecasting and the application of the social audit policy (Northern Territory Government, 1984).

The Commonwealth have yet to announce an attitude to the recommendations of the Inquiry, but if these are accepted as seems likely, what are the implications for the Territory's future?

The economic future of the Northern Territory will be in the following areas:

Mining and Energy - particularly uranium and oil (including the highly prospective Jabiru No.1A field).

Rural - particularly horticulture and beef (including beef exports through Darwin).

Government - particularly the recognition of the unique and special needs of the Territory for Commonwealth funding (Memorandum of Understanding).

Defence - particularly defence spending associated with Tindal (Katherine) and Darwin.

Tourism - particularly Darwin/Kakadu/Katherine (tourist triangle) and Alice Springs/Ayers Rock (the centre).

Manufacturing - particularly cement works (Darwin) and liquid energy proceding (Alice Springs and possibly Darwin).

Undoubtedly these areas can develop without a railway but as was pointed out in the first section of this paper, the railway will provide considerable costs advantages to the key economic sectors, and facilitate the economic development of the north.

In the absence of what is in effect an Adelaide - Darwin railway, the Northern Territory is faced with a continuation of the road train industry which must only be considered an ameliorating albeit partial service for a highly demanding and expanding economy. Northern development will continue in an incremental fashion with development deliberately slowed by public sector investment policies.

This paper highlights the continuing importance of Commonwealth Government policies for the Northern Territory, despite the advent of self government for the Territory since 1978. With mining activity slowed and investment in major transport projects under a cloud, the Territory is looking towards the tourist industry in particular to assist the economy over any short term slump. A heavy reliance will be placed on the 'tourist triangle' of the Top End (Darwin - Kakadu - Katherine) and the Centre including the new tourist village, Yulara, at Ayers Rock. Aviation and road transport will be the key modes in this development.

Indeed the sealing of the southern section of the Stuart Highway in South Australia by 1986, and the upgrading of national highways through the Territory by 1988 under the Australian Bicentennial Road Development Program, will contribute to a major increase in tourist traffic arriving in the Territory by road. Road freight transport will also be a major beneficiary of this work, notwithstanding the recommendations of the Hill Inquiry.

The intensity and importance of the debate surrounding the railway is indicative of the relatively small size of the regional economy. That a single transport project is perceived to have such a large impact on the economy underlines the point.

The future of the railway, and therefore in large part the future of the progressive economic development of Northern Australia, will not be decided on economic or professional grounds, but rather on political grounds. It may not be until the political parties in government coincide between the Commonwealth and Territory that the project goes ahead, and even this is not guaranteed. When it comes to northern development, history shows the Commonwealth remains the reluctant bridegroom.

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FISH AND THE FISHING INDUSTRY

ITS CONTRIBUTION IN THE DEVELOPMENT

OF THE NORTHERN TERRITORY

REX R. PYNE

The industry of fishing is often referred to as the industry of hunters and gatherers. Perhaps this misconception can be explained by the fact that in the main fishermen are very independent, they harvest a natural resource which is owned by the community (ie. common property resource) and that for some fishing has become a way of life rather than a serious commercial concern.

The world's production of fish however, according to the FAO Conference in Rome (10-19 October 1983) can be increased: the biological potential of conventional resources may be as high as 100 million tons per annum, although there are clearly defined practical and economic obstacles preventing this target being reached. Further, there are potential unconventional resources which could also produce very large yields.

Building a fishing fleet can be a very rapid and effective way of increasing supplies of animal protein; the profits can be high but capture fisheries are high risk ventures because the yields are variable and the skills required are in the main uncommon. Fish is a tasty, highly nutritious and easily digestible foodstuff but fresh fish is a very perishable commodity; moreover, and as surprising as it may be, fish is unfamiliar to many people. Fisheries can also provide earnings through foreign exchange.

The Role and Involvement of Governments

Fisheries exhibit all the major kinds of market-mechanism failures that are commonly evident in other primary industry spheres. Governments have become involved in fisheries: to settle disputes; to secure the benefits for the state or nation and to allocate them or to keep them for themselves; and many other reasons. Irrespective of the quality of research and the extent to which individual governments engage in planning of the economy, the failure of fisheries from natural causes, failures of markets, problems of over-fishing and over-capitalization and conflicts over allocation, all result sooner or later in appeals to government for support or judgement.

The desire of governments to anticipate these situations and avoid them as far as possible leads them to regulate the activities of fishing fleets and to exercise some authority over their size and composition. Development of underexploited resources often requires technical or financial assistance, which is often provided by governments in the first instance to stimulate development. More recently, governments have attempted to set total allowable catches and in some cases to allocate shares to various sections of the fleet. For these and other reasons governments usually assume a good deal of responsibility for development and management, including research and market promotion.

The preceding notwithstanding, recognition let alone acceptance by the fishing industry of the 'common property' nature of the resources and the need for government involvement continues to remain a contentious issue within the industry.

Northern Territory Adjacent Waters

In common with their environment, fish have no respect for or recognition of, political decisions made in their best interest or imaginary lines described on the water or seabed to preserve their well being. It is because of this fact that fish resources are deemed to be 'common property' resources, that is they

belong to the community as a whole. In most instances, the agency vested with the responsibility of managing on behalf of the community is Government, and, irrespective of the fish, lines have been drawn (Figure 1).

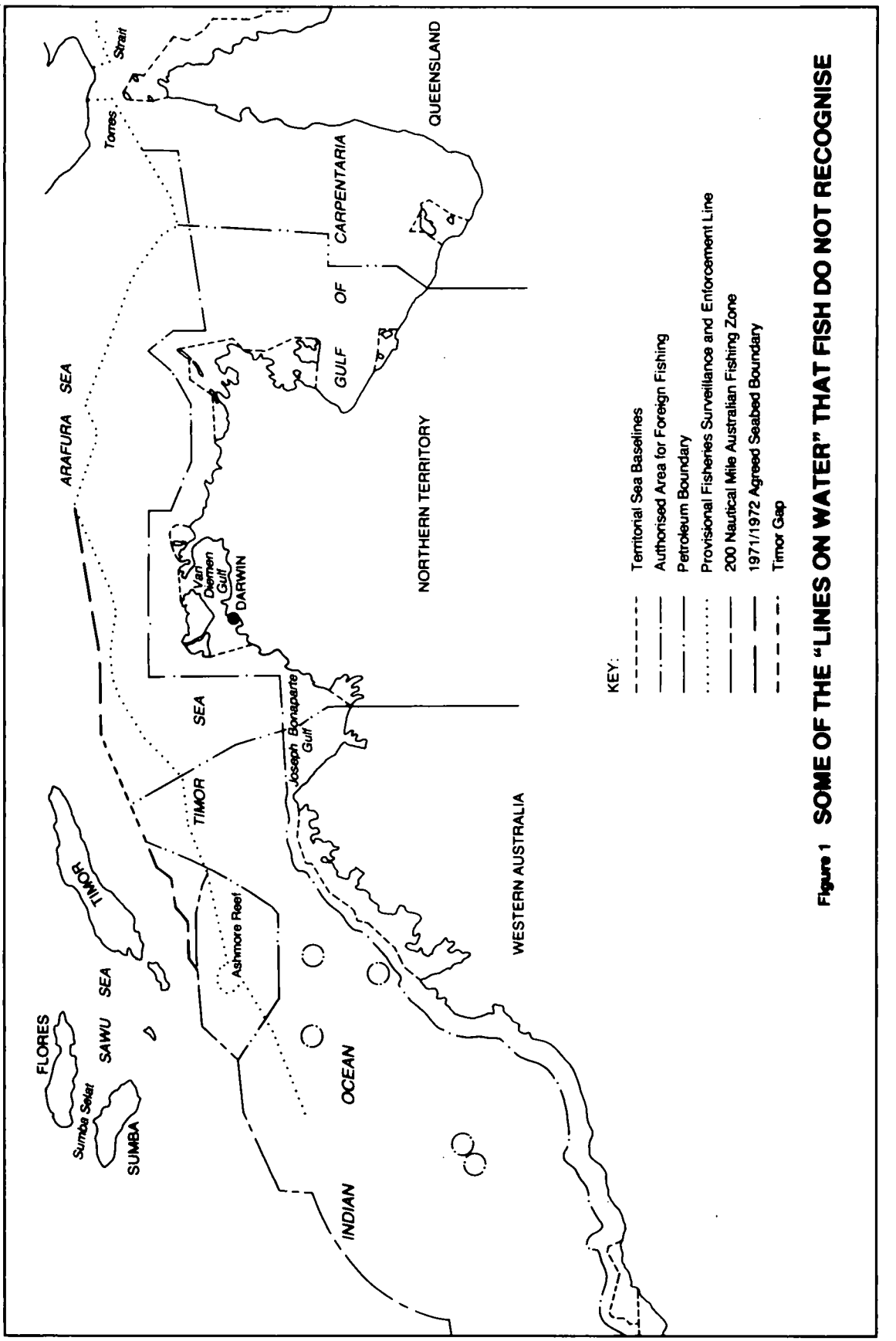


Figure 1 SOME OF THE "LINES ON WATER" THAT FISH DO NOT RECOGNISE

Until recently, the seaward extention of the Northern Territory's jurisdiction over fishery resources was limited to three miles from the coastline measured from low water mark. Beyond three miles out to the outer limit of Australia's jurisdiction fishery resources are managed by the Commonwealth under the Commonwealth Fisheries Act.

On 4 February 1983, following extensive negotiations, the Commonwealth, under the Seas and Submerged Lands Act, proclaimed a number of what are commonly referred to as 'straight line base lines'. This move was primarily directed at simplifying the definition of the Australian coastline from which Australia could then more appropriately measure the extent of the outer limit of the 200 nautical mile Australian Fishing Zone which was declared by the Commonwealth on 1 November 1979.

Another important outcome of the introduction of 'straight line base lines' has been the re-affirmation of the validity of State and Northern Territory fisheries legislation in territorial waters on the one hand and on the other, bringing under Northern Territory fisheries jurisdiction a number of areas of water that were formerly under Commonwealth jurisdiction.

As a consequence of these decisions, the extent of Northern Territory jurisdiction over fish and fishery resources extends three nautical miles seaward of the coastline measured from low water mark or three nautical miles seaward of the straight line base line, which ever is applicable.

Until 1 February 1982 Australia laid claim over sedentary and swimming fish resources out to the edge of the Timor Trench. With the proclamation of an Exclusive Economic Zone boundary by Indonesia on the one hand and the 200 nautical mile Australian Fishing Zone, which, in the waters adjacent ot the Northern Territory, grossly overlapped, agreement was reached between Australia and Indonesia on a Provisional Fisheries Surveillance and Enforcement Agreement which came into force on 1 February 1982. This agreement establishes a median line between Australia and Indonesia in respect of jurisdiction control over the swimming fish resources. South of the median line Australia has jurisdiction to manage, develop and licence vessels whilst conversely Indonesia has these responsibilities north of the line.

It is interesting to note that whilst Australia has deemed it necessary to define the outer limits of jurisdiction, no formal recognition has been given to the lateral limits. Where it has become necessary to refer to lateral limits we have often resorted to the Petroleum boundaries defined under the Seas and Submerged Lands Act.

In addition to the above 'lines on the water' there are lines defining licensing areas, defining closed areas for fishery management purposes (ie. nursery closures), areas defined for restricted fishing gear usage (ie. Fog Bay), lines defining Aboriginal Sacred Sites and 2 km Aboriginal Sea Closures, lines defining the seaward extensions of the Cobourg Peninsula National Park and the proposed Cobourg Marine Park, and lines defining areas closed to foreign fishing vessels.

Present Value of the Industry to the Northern Territory

After livestock production, available public statistics show that commercial fisheries is the second most valuable primary production industry in the Northern Territory. The gross value of commercial fish landings exceeded $18 million per year in three of the last four financial years (1978-79 to 1982-83), the exception being 1979-80 when it fell to $16.6 million. Over the period, prawn production, which has contributed in excess of 80 per cent of the total value, is our most important fishery. Barramundi is the second most important fishery with the remaining contribution being derived from threadfin salmon, spanish mackerel, mud crabs, reef fish and bay lobsters (Table 1).

Table 1

Quantity and Landed Value of Prawn and Other Fish Product in the Northern Territory for the period 1977-78 to 1982-83

	77-78	78-79	79-80	80-81	81-82	82-83
Prawns:						
Estimated gross weight of prawn catch ... tonnes	2 165	3 749	3 147	4 259	2 986	2 402
Gross value of prawns $'000	8 100	17 000	14 900	17 067	15 250	15 691
Other:						
Estimated live weight of fish catch ... tonnes	1 415	1 576	1 352	1 634	1 781	1 778
Gross value of other $'000	1 900	2 334	1 791	2 267	3 090	3 040

These present fisheries, in particular prawns and barramundi, provide an important investment and employment base for a large number of Territorians, not just in the primary catching sector, but in processing, transporting, marketing, ship repair and ship servicing and associated auxiliary service industries. Almost all the fish product landed in the Northern Territory undergoes some form of processing by land based establishment ie. 85 per cent of the prawns landed are exported in frozen packs and the bulk of fish landed are consigned to interstate markets in a frozen form.

The publically available Northern Territory fisheries statistics refer to the landed value of commercially harvested fish product destined for human consumption only. It is important to note that the industry of fisheries in the Northern Territory however, also includes:

(i) a commercial pearl culture industry centred on Port Essington and Darwin Harbour.

(ii) an imported exotic and indigenous aquarium fish industry.

(iii) charter fishing industry

(iv) developing gamefish industry

(v) a very large freshwater and marine recreational fishing industry.

Quite clearly there are difficulties in presenting value statistics on these industries but such a figure, if available, would run into the millions of dollars. In addition to the above, no account is taken in the compilation of Northern Territory fisheries statistics of:

(i) the value of fish product taken by the Australian fishing fleet from the waters adjacent to the Northern Territory which is landed and processed at interstate centres.

(ii) the value of fish product taken by the foreign licensed fishing fleet from the waters adjacent to the Northern Territory which is transported direct to the foreign market place.

Accepting the proposition that the value of the fishing industry includes more than just the landed value of fish product destined for human consumption, it is clearly evident that the present actual value of the industry of fishing in the Northern Territory and its adjacent waters far exceeds the publically available figure of $18 million. A conservative estimate would place the present value of the industry as being closer to $35-45 million.

FUTURE PROSPECTS

Prawn Fishery

Whilst the future export market prospects for prawns look good, this resource is already being exploited close to its maximum, necessitating the introduction in 1977 of management measures which are presently designed to prevent possible over-exploitation on the one hand, whilst on the other hand, enabling account to be taken of the economic well-being of the catching sector recognising increasing vessel operating costs. Notwithstanding these management measures and acknowledging that the total amount of prawns harvested is most unlikely to increase, the potential still exists for the Northern Territory to increase the benefits derived from this fishery. Such could be achieved through Darwin (which is geographically centrally positioned within the declared Northern Prawn Fishery) by attracting increased landing - processing - marketing of the catch on the one hand and provision of vessel service and repair facilities on the other.

In addition to the primary prawn catch, the potential exists to increase the utilization of the by-catch (which in the main is presently discarded) including squid, cuttlefish, scallops, a wide variety of lower unit value fish and shark.

Barramundi - Salmon Fishery

As with prawns, the future interstate market prospects for barramundi remain strong, however, both the barramundi and threadfin salmon resources are already being exploited close to their maximum and management measures are firmly in place. Whilst the quantity of product harvested is unlikely to increase, the potential exists to improve the market returns from the threadfin salmon fishery and to develop outlets for some of the by-catch ie. Queenfish (skinnies).

Off-Shore Reef Fish Resource

Commercial exploitation of this resource, which in the main is located in water under Commonwealth jurisdiction, is still very much in the early developmental stages. Between 1980 and 1982, the Japanese dropline fishing vessel Takuryo Maru No. 11 conducted a successful two year commercial feasibility fishing study in adjacent waters. Since that date two Northern Territory based vessels have undertaken commercial developmental fishing in the area using dropline machines, wire fish traps, bottom gillnets and bottom fish trawl gear. Although good catches of high unit value reef fish have been made, overall catch rates have not yet reached a level equating to a viable Australian operation.

Based on the limited data available, this resource could have a minimum potential landed value of around $2 million annually.

Pelagic Fish Fishery

Estimates, based on available data, have placed the resource available for commerical harvesting at around 10,000 tonnes per annum with a minimum landed value of around $10 million.

Since 1979, following the declaration of the 200 nautical mile Australian Fishing Zone, the Taiwanese gillnet fishing fleet (thirty vessels), operating in approved waters (excluding Gulf of Carpentaria, Joseph Bonaparte Gulf and a band extending around 30 nautical miles seaward off the Top End) have attained their annual quota of 7,000 tonnes per annum with relative ease. For the 1983-84 licensing years, the bilateral quota allocation has been lowered to 4,000 tonnes (thirty vessels) with 2,000 tonnes being allocated to the recently announced Kailis Kaohsiung Fishing Co. joint venture (eight vessels), and a further 2,000 tonnes being set aside pending finalisation of a joint venture fishing agreement with Thailand.

Shark is the main fish harvested (greater than 80 per cent of total landings) with the balance of the catch comprising Long Tail Tuna (Thunnus tonggol) and Spanish Mackerel (Scomberomorus commerson). Of the twenty-odd shark species present in northern tropical waters, two species, namely Carcharhinus limbatus and C. sorrah comprise 70-80 per cent of the catch.

Up until recently, there has been little interest shown by Northern Territory fishermen to enter this fishery. Some of the reasons for this reluctance can be attributed to the high volume lower unit value nature of the resource; absence of readily apparent market outlets; and inexperience in the specific fishing skills required.

Recent developmental research undertaken by the Fisheries Division, including extensive mercury analysis; chemical and taste panel analysis; biological research, together with "word of mouth" promotion throughout Australia, has resulted in increasing Australian interest (fishermen, processors and marketers) in entering this developing fishery.

It is anticipated that once underway, some 80-90 per cent of the pelagic catch landed will be marketed overseas, which in turn will require the development of improved marketing expertise in the Northern Territory, and closer co-operation and understanding between the fishermen and the processing-marketing chain.

Additional benefits will accrue to the Northern Territory from this developing fishery through boat repair and servicing requirements.

Fin-Fish Fishery

Since the early 1960s when the prawn trawling industry commenced in northern Australian waters, demersal trawl fish have been taken as a by-product but discarded as trash because no viable use could be found for it.

Following the declaration of the 200 nautical mile Australian Fishing Zone in 1979, 120 (60 pairs) Taiwanese pair trawlers licensed under a bilateral fishing agreement have been operating in approved areas in northern Australian with an annual quota allocation of 20,000 tonnes of demersal trawl product.

The prospects of Australian vessels participating full time in this fishery in the foreseeable future, acknowledging the difficulties presently being experienced in the higher Unit valued prawn fishery resulting from increasing operating costs, are relatively remote.

Australian prawn fishermen may however, be able to take advantage of foreign fishing arrangements to supplement their income by marketing their fin fish by-catch. Such an arrangement or methods for implementation have not as yet been seriously considered.

Mud Crabs

This relatively small domestic fishery (potential landed value in excess of $250,000) is already being exploited close to its maximum in areas close to population centres necessitating the introduction of management measures. Interstate market prospects for this product remain very good. Notwithstanding these measures, the revenue generated from this fishery could be greatly enhanced by improved holding, transporting and marketing procedures. Such improvements can, in the main, only be achieved by greater co-operation between the catching and marketing sectors of the industry - the latter being most reluctant to participate due to lack of commitment by the former.

Scallops

This is a highly sought after product which has ready market outlets both in Australia and overseas. Scallops in northern Australia have, to date, appeared only spasmodically in landing statistics, however, word-of-mouth from fishermen suggest that whilst considerable quantities are taken in prawn trawl operation they are dumped over-the-side as trash. The main reason for this practice is that the vessels concerned are target fishing for prawns some considerable distance from port and to attain premium prices scallops should be landed fresh in the shell. Further, unless expensive capital equipment is invested, the removal of the meat from the shell is labour intensive, thus with only occasional catches being landed, processors in the main are not equipped to handle them.

The above motwithstanding, the Fisheries Division is researching the size, extent and commerical potential of this resource in a defined area in conjunction with a Northern Territory private entrepreneur who has commenced commercial harvesting, processing and marketing on a pilot scale.

Aquaculture

Commerical aquaculture is an exciting new potential industry for the Northern Territory.

The terms fish culture, fish farming, aquaculture, mariculture, and sea farming or sea ranching are not synonymous, but they are similar. They relate to the rearing of desirable aquatic organisms under controlled conditions for economic or social benefits. Mariculture, sea farming, and sea ranching generally denote the growing of organisms in marine environments; fish culture, fish farming, and aquaculture are broader terms referring to the rearing of organisms in waters, whether fresh, brackish, or marine.

Aquatic organisms include aquatic animals as well as aquatic plants. Aquatic animals comprise all kinds of fin-fish and shellfish, whether they are herbivorous, carnivorous, or omnivorous. Aquatic plants consist of the various kinds of seaweed and freshwater algae.

To be successful, aquaculture must be conducted under specific conditions. The culturists must be able to control water quality, ensure proper nutrition, promote breeding, and protect fish from disease and predators. Also, culturists must obtain ownership, lease, use rights, or they must discover other means of establishing rights on land, seashore, or water surfaces.

The advantages of aquaculture over conventional fishing and agriculture are many. First, fish culture is stock raising, as opposed to hunting. Stock raising can be more efficient than hunting, in harvesting a resource, because extensive search efforts (e.g. sailing energy and time) are not required; thus, harvest is proportional to effort and can be predicted. Second, environmental conditions can be largely controlled and genetic characteristics can be manipulated to improve yield. More important, exclusive rights to a resource can be established in most cases and international agreement usually is not necessary (except for Pacific salmon ranching).

Aquaculture can also be conducted on land that is not suited for agriculture. It can and does flourish on lands whose waters are mostly saline or brackish. Further, as fish live in a fluid medium and are cold-blooded, they require minimal metabolic energy for maintenance of body temperature and for normal locomotion compared with land animals, therefore, are more efficient converters of food.

In addition, market demand for fish in aquaculture facilities can be expanded much easier than the demand for wild fish. Fish farmers are able to guarantee delivery of a certain amount and quality, which is sometimes not possible for ocean fisheries. Fish farmers can also control production and market their stock when natural supplies are either seasonally low or unavailable for other reasons. More important, aquaculture offers the possibility for species' improvement by selective breeding to meet consumers' tastes and market requirements.

In the main, the relevant technology and expertise necessary for aquaculture development is already available and can be improved. The principle question that remains unanswered and is presently being investigated is, can this technology be adapted to Australian conditions in an economically viable manner. Such can only be ascertained by encouraging the establishment of pilot operations in the Northern Territory using imported technicians and technology as a precursor to more substantial investment.

Recreational Fishing

Compared with many other population centres throughout Australia, recreational fishing has developed in the Northern Territory as part of our life style. Perhaps the explanation for this can be attributed to the presence in

our fresh and estuarine waterways of the popular game and eating fish, Barramundi (Lates calcarifer).

Because of its popularity, the Barramundi is now being used as a tourist draw-card, not only from the catching viewpoint but also because every tourist visiting the Northern Territory believes their visit is incomplete until they have enjoyed a Barramundi meal.

In recent years the recreational fishing industry in the Northern Territory has seen the establishment of Safari Camps, river and estuarine charter boat operations and more recently, interest in developing a light and heavy tackle gamefishing industry based on sailfish and marlin.

Quite obviously, development of the recreational fishing industry has and will continue to conflict with the commercial industry, however, with careful forward planning, conflicts can be minimised.

Other Potential Fishing Industries

The industry of importing and marketing exotic imported aquarium fish in Australia is reported to be valued in the order of $12 - $15 million. The Northern Territory, with its tropical climate is potentially suited to the culture of such aquarium fish to replace the need for continued import and potential introduction of unwanted species and associated transmissible diseases.

Recognising that such an industry would require special controls in order to prevent escape into the natural waterway, investigations are currently being undertaken to assess the practicality and viability of such an industry in the Northern Territory.

In addition to the imported tropical aquarium fish, the tropical waters in the Northern Territory support a range of potential indigenous aquarium fish species which are highly sought after by the interstate and overseas aquarium fish trade. The potential for this small but valuable industry to expand under careful management is being investigated.

Conclusion

Despite increasing vessel operating costs (including fuel) on the one hand, and the introduction of management regulations on the other, the potential for further development and expansion of the fishing industry in the Northern Territory is exciting.

To take advantage of this potential, changes in fishing strategy and technology will be necessary; attention will need to be given to reducing operating costs such as fuel efficient engines, improved refrigeration and increased mechanisation to reduce labour costs; improved vessel unloading and handling facilities will be required to handle high volume lower unit value product on the one hand and to attract increased throughput of existing high unit value product on the other; greater use will need to be made of the catch taken (ie. development of market outlets for product presently trashed); new vessels, new fishing gear and fishing techniques will need to be introduced to harvest the potential new resources.

Such changes will not however be easily introduced or accepted. Fishermen will need training, finance will be required, and new marketing and handling expertise will need to be introduced. Quite clearly, such changes will not occur overnight but nevertheless the potential does exist.

In the area of aquaculture, whilst superficially appearing to be a simple process will, if proven to be viable, require a wide range of new expertise which are presently not available in Australia. We have the necessary brood

stocks, potentially the right climatic conditions, but the question is, can we make it work?

These are just some of the exciting challenges that face the developing fishing industry of the Northern Territory.

MARKETING MANAGEMENT OF THE SEAFOOD INDUSTRY IN THE NORTHERN TROPICS

SUNITI BANDARANAIKE

This paper discusses management aspects of a major industry in the northern economy - the fishing industry. The economy of northern Australia is oriented mainly towards primary production. Whilst 12.2 per cent of the total workforce are employed in agriculture, 7.5 per cent are in mining. This total of 19.7 per cent in primary production compares with the national average of 8.3 per cent so employed (Courtenay, 1982). These statistics emphasize the peripheral location of the northern tropics, both from population centres and markets of the rest of Australia and that of the world. Another characteristic of the northern economy is its export-based activities of a pastoral, agricultural (including fisheries), and mining origin.

As far as the people of the north are concerned, it must be noted that it is a highly mobile population, large numbers of the original settlers are immigrants, urban areas such as Darwin have a very mixed ethnic background and also there are large pockets of Aboriginal settlement which are not commonly found elsewhere in Australia. Marketing management in the north, must be viewed in the light of the above context.

Marketing is the performance of all business activities involved in the flow of goods and services from the point of initial production until they are in the hands of the ultimate consumer. Marketing examines people's wants and the production, the selling, packaging and distribution of products. These wants in turn are dependent on the image of the product created in the customers' minds via promotion and price. Marketing is the link between producers and consumers. Marketing management is the analysis, planning, implementation and control of programs directed at giving maximum satisfaction to the consumer and profitability to the firm.

In the first half of this paper the effect of select demographic and socio-economic variables such as population distribution and growth, income, household composition, religion and ethnicity of the consumer decision making process is discussed together with the analysis of the existing patterns of seafood (fish and shellfish) consumption in Darwin based on data obtained by survey in 1982. The second half of the paper analysis the existing structure of marketing seafood in the north and its effects on consumer purchases. Finally, marketing management of the seafood industry in the northern tropics is viewed in the context of limiting factors such as accessibility, climate, peripheral location and the demographic and socio-economic background of the north.

It is important to know where the people are and how much they have available to spend. These factors will determine the distribution of markets. Neither people nor incomes are distributed evenly throughout the Northern Territory or within any single urban area. Whilst the Greater Darwin area has approximately 46 per cent of the population, Alice Springs has 15 per cent, Katherine, Nhulunbuy and Tennant Creek about 3-4 per cent each. When considering growth rates Tennant Creek has the highest growth rate of 6.9 per cent followed by Greater Darwin's 5.5 per cent and Alice Springs' 5.4 per cent (ABS, Darwin, 1982). During the period of population growth, the purchasing power of the people has also risen. The fact that both the number of people and their purchasing power have been increasing is important because it means an expanding market for food products, including seafoods.

Urbanization in the Northern Territory has been increasing since the 1960s. In Greater Darwin new suburbs have been extended to the north of the city in addition to the new growth area of Palmerston, approximately 25 km from the central business district. There are also plans for further development towards the East of Darwin in the suburbs of Leanyer and Karama.

Along with urban development have come smaller living quarters and household units. In Darwin almost a fourth (24 per cent) of the population (ABS, Darwin, 1981) live in flats. A considerable proportion of the population also live in caravans, particularly in the Darwin statistical division (13 per cent) Katherine (13 per cent) and Tennant Creek (8 per cent). There has been some tendency toward smaller families in recent years and an increasing tendency for the 'Australian family' to live alone. However among overseas born communities living in Darwin, the trend is exactly the opposite. Parents, grandparents and sometimes even in-laws live in the same household as an extended family. Of the overseas born communities, the latter characteristic is true of only 6 per cent (1981 ABS Census, Darwin) of the total population of Darwin and therefore will have only a marginal influence on household consumption patterns (percentages are rounded in the text).

The trend towards city living has its impact on marketing. The smaller urban family with both parents employed, living in crowded conditions has resulted in an increased demand for smaller packages and more prepared and semi-prepared food: for example, smaller size tins (11Ø gm) of canned seafoods and the demand for fish fingers from households having young children.

A large number of food items are now being packed in individual servings for the family that wishes to use a relatively small box in order to maintain freshness of the product. This would be expected of servings of seafood as well, particularly since constant freezing and thawing contaminates the produce.

Stage in the life cycle is another important determinant of market conditions. Generally, marketing innovations are more acceptable to a younger population. The age structure of Greater Darwin indicates the presence of a very young population. Whilst 31 per cent of the population is under 15 years of age, 41 per cent is between 15 and 34 years, and only 28 per cent of the population is over 35 years (ABS, Darwin, 1981).

The age groups responsible for population growth are usually between 15 and 35 years of age, which in the case of Darwin is quite substantial. This therefore foreshadows the potential for increased household consumption in the future.

Statistics on the 'usual place of residence' indicate that within the five year period (1976 to 1981) 6Ø per cent came from interstate and 8 per cent from overseas (ABS, Darwin). Consumption patterns are greatly influenced and constantly changing as a result of this highly mobile and cosmopolitan population mix in Darwin.

In measuring market potential not only numbers but the income per square mile of area is also important. In the case of the Northern Territory, the per capita income is highest in the Greater Darwin statistical region. For many goods demand rises as income rises. However, at higher income levels a smaller proportion of the total income is used on the purchase of necessities, and consequently purchases of non-essentials rise. It must be noted that within the broad category of seafood, there are some species which are considered 'luxuries' because of high price and others considered 'basic necessities'. Elasticity of demand for various species of seafood, therefore, may vary widely. Fish in general is a necessity if promoted correctly. Table 1 (see Appendix) gives the average weekly household expenditure for different income groups for meat and fish. From this table it can be seen that household expenditure increases with increasing income.

Generally consumers tend to eat more expensive foods when incomes rise and plainer foods when incomes fall. As incomes rise, consumers tend to buy more service and processing in their food products. Research in United States show that as incomes increase, the percentage spent on food decreases. This however, does not indicate a fall in the per capita food consumption. On the contrary, consumers are constantly upgrading their diets through the purchase of more expensive foods. This developing relationship is of major importance to both fisherman and the seafood industries. Augmentation of consumer income will not

improve very much the additional income of fishermen for their primary produce. Most additional money allocated to food will contribute largely to the marketing firms that are adding services and 'attributes' to the raw material. This in turn means the market will have to be exploited continually.

There are also regional differences in income within the Darwin area and these must be taken into account in any marketing strategy. Seafood retailing units should adopt different practices to handle different forms and species of fish and shellfish when serving the diverse income groups. Variations in income and its effects on seafood purchases in Darwin are discussed below.

Ethnic origin and religion are two important factors affecting food consumption. Many large cities and certain sections of the country have large groups of foreign born people who have retained the consumption habits of their native lands. In Darwin for example, almost one fourth of the total population are overseas born (ABS, Darwin, 1981).

This feature can be of considerable importance to the marketing machinery. In the case of seafood, unlike the consumption of meat, religion affects consumption to a lesser extent than ethnic origin. For example, some Catholics substitute seafood for meat on Fridays. Therefore the movement of these products into retail channels will be so scheduled that seafood products will be available for the Thursday and Friday trade. The Lenten season also affects many consumers' eating habits. The effects of these variables are analysed with reference to the seafood consumption survey of Darwin (Bandaranaike, 1983).

At any one place and time, there will be a wide diversity of individual food wants and desires. For the Darwin statistical division, seafood consumption patterns illustrate the following characteristics.

Of all the capital cities in Australia, Darwin has the highest proportion (96 per cent) of households consuming different forms of seafood. (All Darwin consumption figures referred to are from the author's survey 1982). Comparable figures for other capital cities are as follows - Perth (78 per cent), Melbourne (81 per cent), Adelaide (81 per cent), Sydney (82 per cent), Canberra (85 per cent), Hobart (86 per cent) and Brisbane (86 per cent) (Department of Primary Industry, 1978). The general popularity of seafood in the northern tropics is supported further by the high consumption rates of most north and central Queensland urban areas of Townsville, Cairns, Rockhampton, Bowen and Mt Isa - all over 90 per cent (Bandaramaike, 1981).

In marketing management it is necessary to maintain the levels of satisfaction among the existing consumers, and at the same time convince the non-consumers of the utility of the product being sold. Non-consumption could be a result of the prevalence of substitutes, difficulties in the acceptance of the product itself, or an outcome of its functional value to the consumer - such as convenience, availability, preference of handling, packaging etc. Of the 4 per cent households that do not consume any form of seafood more than half (57 per cent) stated they prefer meat to seafood. Some even stated that they were not accustomed to eating seafood since it was never served in their household.

Of the different forms of seafood consumed in Darwin fresh seafood (86 per cent) is the most popular followed by canned (76 per cent), frozen pre-packaged (37 per cent) and cured/smoked (21 per cent) seafood. This trend is common throughout Australia. Whilst the high demand for fresh, quality seafood will always remain the same, it could be anticipated that the demand for processed seafood products may vary in the future. For example in a recent survey of US seafood consumption it was shown that consumption levels of canned seafood were falling (Australian Fisheries, Aug 1983). It may also be envisaged that pre-packaged frozen seafoods could gain popularity with increasing urbanization.

Forms of seafood consumed were affected by certain socio-economic variables like household composition, income, religion and ethnicity. Fresh seafood undoubtedly was the most popular in all categories of household composition except 'single adults' (table 2). The latter had a high proportion (92 per

cent) eating seafood outside home, probably as a matter of convenience. Almost a fourth (21 per cent) of the population comprise this group. Therefore this characteristic should have a significant impact on restaurant and take-away trade of seafood in Darwin. Households comprising adults with more than two children also had a very high proportion (92 per cent) eating outside the home. These would be mainly consumption through fish and chip shops. Generally, households with children were large consumers of frozen pre-packaged seafood, mainly fish fingers which were found to be very popular with children. Canned seafoods were also found popular in households having young children. According to the 1981 Census, just over 46 per cent of the households have one or more children. Therefore, for purposes of marketing this sector of the population comprises a significant group.

The relationship between consumption patterns and incomes is illustrated in table 3. The largest variation in form of consumption is found in the middle income group. Whilst fresh seafood is more popular among all income classes, canned seafood is consumed more frequently (89 per cent) in the lower middle income group of $8,000 to $18,000. The incidence of canned seafood consumption is relatively low in both the very low and very high income groups. In the very low income group (less than $8,000) while fresh seafood consumption at home is popular, at the same time almost two thirds (64 per cent) of this group consume seafood outside the home - ie. mainly at fish and chip shops. This income group comprises 8 per cent of the total population. In the very high income group more than three-fourths (80 per cent) consume seafood outside the home, but unlike the very low income category this would refer to dining at restaurants.

Religion and ethnicity are related attributes affecting seafood consumption. Darwin is one of the areas in Australia with a very wide variety of ethnic origins and religious diversity. There is little variation in the consumption of fresh seafood among different religious denominations. However, relatively few Greek households (9 per cent) consume smoked or cured seafood, their preferences being for fresh seafood. Among the non-christian, that is mainly the Asian, households- tables 4 and 5 - consumption outside the home was relatively low (50 per cent). This could be attributed to their social background of concentrating more on eating together as a 'family' and their preferred cooking methods which are not available outside the home. Most Catholic households are still in the habit of eating fish and chips on Fridays in preference to meat. This accounts for the relatively high proportion (86 per cent) of Catholics using take-away outlets - table 5. It is noteworthy that the Aboriginal and Islander group have little or no consumption of frozen, cured or canned seafood. Whilst the consumption of canned seafood is popular among European and Mediterranean households, the consumption of cured/smoked seafood is relatively low among this group.

A special characteristic of the east Europeans is their substantial consumption of smoked/cured seafood (80 per cent). This group comprises just over two per cent of the total overseas born population.

Of the five most popular species of seafood consumed in Darwin, three are forms of shellfish - namely, prawns, crabs and bugs. Barramundi is the most popular form of seafood consumed among 71 per cent of the households in Darwin, followed closely by prawns (69 per cent) whilst snapper is consumed by slightly over a third of the households (39 per cent) and crabs, bugs and scallops are consumed by approximately a quarter of the households.

This popularity in demand of select species is partly attributed to the supply characteristics of the area. Of the total fish, crustacean and mollusc production for 1980 (excluding export prawns), 41 per cent comprises barramundi. This is despite the significant decrease (37 per cent) in the barramundi catch since 1977. Further, approximately two thirds of the households engaged in fishing activity in Darwin catch barramundi. Barramundi has a distinct flavour and it is not surprising that demand remains high for this species. Next to barramundi 31 per cent of the local production comprises threadfin salmon which in contrast is consumed by only a fifth of the household. Of the total crustacean production 99 per cent consists of prawns. A large portion of this does not enter the domestic market because of its export orientation.

Particularly in the case of prawns the demand is far in excess of the supply thus leading to adverse effects on market price.

Interesting relationships can be observed between consumption patterns and certain socio-economic variables. For instance, irrespective of ethnic origin, barramundi and prawns were the most favoured species among the Darwin households. As much as 92 per cent of the 'Asian' households and 83 per cent of the 'Adriatic' (mainly Greek origin) households consumed prawns. There were also a few select species of seafood that were more favoured among some ethnic households than others. For example, squid and snapper had a relatively high demand among 'Adriatic' households.

Species such as Spanish mackerel, skinny (Queenfish) rock cod, coral trout and dhufish (Jewfish) were widely consumed among most ethnic groups. Yet their individual consumption frequencies were not as high as for barramundi or prawns. Therefore future development of the market must be directed at increasing consumption further in the more popular varieties referred to above.

Species of seafood consumed were also found to vary with different income levels. Once again, barramundi and prawns were the most widely consumed species (fresh) among all income levels. However, there was a strong positive correlation between the consumption of higher priced species such as barramundi and prawns and the higher income levels. In contrast, frozen pre-packaged seafood mainly fish fingers and fish cakes were consumed mostly among the very low income groups of less than $8,000. It is interesting to note that fish fingers were in great demand even among the very high income groups: 80 per cent of all consumer households ate fish fingers. In the latter group the main consumers were the younger children belonging to these households. Smoked seafood products such as smoked cod and smoked salmon were most frequently consumed in the 'average' to 'high' income groups of between $18,000 and $75,000. Whilst among the very high income group smoked cod and smoked haddock were popular, smoked eels were in much demand among the very low income households (less than $8,000). Among all households the most widely consumed species of smoked seafood were smoked cod, smoked haddock and smoked herring.

The canned seafood consumption exhibits different trends, Tuna (71 per cent), salmon (61 per cent) and sardine (56 per cent) were the most widely consumed species among all households. There was a strong association between high income levels and the consumption of the dearer products such as tuna and salmon on the one hand and sardine consumption and low income groups on the other hand.

These variations in species consumed according to ethnic background and income levels are an important determinant of market segments and an integral part of marketing management.

Periodicity and seasonality of sales is another important aspect of marketing. Even though 70-80 per cent of the households were unable to recall a definite pattern in serving seafood on a particular day, the remaining respondents stated that Saturday and Sunday were usually the most popular days for serving seafood. Friday had the next highest frequency.

In the same survey the rate of recall was much higher regarding the meal at which seafood was usually served. With the exception of canned fish, seafood was most frequently served at the evening meal (table 6). In households where both husband and wife were employed probably the evening meal would be the only meal the family had together. This reason also may be extended to the relatively higher frequencies of seafood found over weekends.

A distinct trend was visible in the serving of canned fish as a lunchtime meal. On 57 per cent of the occasions while canned fish was served at the midday meal, canned shellfish was served on 21 per cent of the occasions. This can be accounted for by the popularity of fish sandwiches as a lunchtime snack.

The above trends illustrate that seafood promotion should be directed at increasing consumption more generally during the week, possibly by having pre-cooked, conveniently sized pre-frozen packages that can be utilised instantly with the minimum of cooking time. At the same time the existing demand for seafood as an evening meal and at weekends should be supported by continuity in supply.

Compared with other capital cities of Australia, Darwin had a much greater variety of seafood cooking methods. This could possibly be attributed to the cosmopolitan background of the Darwin society. The most popular method of cooking was frying - ie 40 per cent of the occasions fish was fried and on 56 per cent of the occasions shellfish was fried. Grilling or BBQ was the next most popular (21 per cent) form of fish preparation., while boiling or steaming was used (24 per cent) for shellfish cooking. Other methods used were - baking, currying and eating it 'straight' as in the case of cooked prawns or canned seafood (table 7).

Purchasing characteristics and attitudes of the consumer are to a large extent a reflection of supply conditions. From this point of view the next section examines sources of seafood purchase, store location, presentation of the product, purchase preferences and attitudes of the consumer.

In Darwin seafood is made available to the consumer directly from the fisherman, through a wholesaler, a chain supermarket, a specialised fish shop, a neighbourhood store or even from the butcher (table 8). The most popular source of purchase was the chain supermarket, particularly for frozen pre-packaged seafood (90 per cent), smoked, cured or dried seafood (84 per cent) and canned seafood (89 per cent). The next most important retail outlet for these forms of seafood was the local supermarket. Fresh seafood, was often purchased from a specialised fish shop but it was also obtained from friends or relatives: 46 per cent of all consumer households in Darwin are engaged in amateur fishing. This is also a reflection of the quality of the product demanded by the average consumer. Even though fresh fish is sold in chain supermarkets, very few purchases are made here since there is doubt regarding the freshness of the produce. On the other hand, frozen and pre-packaged, smoked and canned seafood were purchased most frequently at the chain supermarkets because of the range offered and the price competitiveness of the product. To a lesser extent the same is true of the local supermarket. However, there is much to be desired in the fresh fish product sold at most of the local supermarkets in Darwin.

Unlike most other major cities of the north, Darwin is extremely well catered for by suburban shopping complexes located in almost every residential suburb. Particularly in the northern suburbs of Darwin, these complexes are well planned and thus support the extended patronage of the local supermarket for the purchase of most forms of seafood. Closer monitoring of the fresh seafood products sold at these local supermarkets will undoubtedly increase the demand and thereby the overall consumption of the product.

The commercial fish market at the time of the researcher's survey was practically non-operative - hence the low frequency of 6 per cent.

The mobile fish van should be extended to serve some of the outback areas of the Northern Territory. At the moment it services only the population of Greater Darwin by retailing at strategic points along arterial roads or at weekend markets such as at Rapid Creek.

On the supply side some of the more important aspects of marketing management include location of the store, presentation of the product, quality of the product - most important in a perishable commodity such as seafood - price competitiveness of close substitutes and the general availability of the product throughout the year.

Altogether only about a third of the consumer households had complaints regarding the sale of the product. The majority of the complaints were directed at fresh and frozen pre-packaged seafood. One of the major complaints for all forms of seafood was the 'poor quality, taste and smell' of the product. One of

the major reasons for the non-consumption of smoked, cured, dried seafood was the poor quality, nauseating smell and the unpalatability of the product. Two thirds of the consumer households complained of 'high price' (table 9). A considerable proportion of non-Australian ethnic households complained about the unavailability within Darwin of smoked, cured and dried seafood products. It is also significant that a quarter of those who complained had some reservation regarding the quality of seafood presented in the canned product. This probably is the result of a few reported cases of salmonella poisoning. In the case of frozen pre-packaged products the general complaint was the product being unfavourable because of the 'suspected'thawing and re-freezing of the commodity. This was attributed partly to the constant breakdown in the city's source of electricity. Some of these attributes and limitations within the industry could be changed through consumer education and by up-grading existing retail outlets.

Apart from the consumption of seafood at home there is also consumption outside the home at restaurants, clubs, pubs or even at the fish and chip shop. In countries like America it is estimated that about one meal in five is eaten away from home (USDA, 1980). In keeping with the food trends in the rest of the world it is highly likely that with increasing incomes in the future the proportion of Australian consumers eating away from home will increase. According to household expenditure surveys conducted in 1975-76 for all capital city households (tables 1, 10) it can be seen that for meals taken outside the home the average weekly household expenditure increased with increasing income. The average for all capital cities was $6.98 per week which is only about 4 per cent of the total household expenditure. This compared with 20 per cent of the total household expenditure being spent on meals eaten outside the home in the case of the United States USDA 1975). It is also interesting to note that the average for Australian capital cities is $5.47 for households without children and comprising 4 per cent of total expenditure, whilst households with children average $6.76 but comprises only 3 per cent of the total expenditure. Currently a larger proportion of the household budget is spent on meat and fish consumption at home than on meals eaten outside the home - ie an average of $8.36 per week or 5 per cent of the total expenditure. When comparing households without children and with children as far as weekly expenditure on meat and fish are concerned the latter group spends a slightly higher proportion (5 per cent) of their total income than the former group (4.5 per cent) on these commodities (table 10).

Particularly in the major cities of Australia, restaurant eating has experienced a tremendous growth. With the growing commuter problem in the urban centres, increasing numbers are eating at clubs, pubs, cafeterias and fast food outlets. There is also the convenience food franchises such as Hungry Jacks, McDonalds and Kentucky Fried Chicken which are located on highways or arterial roads. Darwin in its own way has developed specialised seafood restaurants such as Neptune's Doorway, The Greek Restaurant and Rock Oyster located within the city. The institutional market for seafood therefore is an important aspect of the industry.

According to the survey 75 per cent of all households consumed seafood outside home at an average frequency of one to five times per month. An equally large proportion used fast food outlets with the same frequency as restaurants.

Prawns, oysters and barramundi were the species with the greatest demand at restaurants. At fast food outlets, once again prawns and barramundi were in high demand.

Institutional buyers purchasing seafood for restaurants, clubs and fast food outlets have a somewhat different demand from the consumer household. They are increasingly interested in portion control, standardization, labour saving and general availability. For example, items such as pre-cut butter, jelly in individual containers and frozen french fries are the type of food development sought by these institutions. With reference to the seafood market some of the major factors sought by the institution buyers of seafood are as follows: continuity of supply; price competitiveness; availability of the product in a form suitable for handling in bulk and for subdivision into smaller units; easy storage and capability of being cooked and reheated rapidly; being able to meet

certain minimum specifications of the consumer such as the minimum bone content, fresh quality etc.

Even though the present population of Darwin is 53,938 (ABS 1981 Census) there is a great potential for the institutional market for seafood in Darwin owing to the prevalence of one of the highest rates of population growth in Australia - 4.5 per cent per annum (ABS, 1981). Darwin, being the northern-most international airport of Australia, also has the advantage of large numbers of tourists passing through who are most likely to patronise restaurants, clubs and even fast food outlets. Therefore the institutional market together with the household market should be developed with appropriate management techniques.

Management strategies should be directed at the nature of the product, nature of demand and availability of supply. Planning should also take into consideration the demographic and socio-economic background of the population.

Fresh seafood is a highly perishable commodity and therefore has to be handled with great care. Rapid transport between places, storage at the correct temperature, proper packaging and careful handling all contribute to the quality of the product. The high temperatures prevalent in Darwin which are typical of a tropical climate by no means facilitate the handling of seafood. Yet it is this same tropical climate that is conducive to the relatively high consumption rates of seafood in Darwin. Throughout the world some of the highest rates of per capita seafood consumption are to be found in the tropical areas.

The importance of demographic and socio-economic variables for purposes of marketing management were stressed throughout this paper. It was noted how factors such as ethnicity, religion and levels of income affect consumption patterns. However, because of the increased mobility and greater spatial interaction in the community through the media and magazines etc, regional differences in consumption patterns are probably declining. Advances in technology and transportation have further minimised regional differences. The differences that do exist have to be viewed in a spatial context. That is, peripheral location of Darwin with respect to other populated areas of Australia and the dispersed settlement pattern with relatively small population clusters in the outback areas of the Northern Territory.

The major impact of increments of income added to existing levels has been felt more in the amount of servics and processing, and less on the raw material itself. Thus innovations in foods and food services is an essential element in successful marketing management. Purchasing power, knowledge and education, availability, mass production and mass communication stimulate food innovation and its ready acceptance by the consumers. It is also noteworthy that consumption patterns and habits are continually changing and never static. Seafood marketers should be aware of these factors when planning the sale of their product.

It is encouraging to note that the annual rate of population increase for the Northern Territory is 3 per cent compared with 1.3 per cent for the whole of Australia. Within Darwin the more recent expansion in population growth has been concentrated in the northern suburbs of Leanyer, Karama, Tiwi and Malak. At the same time a population decline may be noted in the inner city and suburbs close to the city such as Parap/Fannie Bay and Stuart Park. Amongst other factors the establishment of seafood retail outlets should take note of the new growth areas within Darwin and any differences in purchasing power among the suburbs. For example, those stores serving higher income groups should stock goods with a higher service component and higher quality, more expensive species of seafood and perhaps undertake home delivery. On the other hand stores established in the lower income areas should stock the less expensive species, since this group would be more price conscious than the former group. As incomes rise increasing numbers of consumers will select their stores for quality and convenience. This means owing to income variation there are always buyers for lower quality foods as well as more expensive higher quality foods. The job of the marketing machinery is to assure that each store finds its potential buyer.

Another aspect of the market that can be taken advantage of is the new trend where a large proportion of people are becoming diet conscious in order to lose weight. The relatively low fat content and the high protein content of seafood should be stressed in this market segment.

The importance of household composition and the stage in the life cycle cannot be ignored. 'Young' households have a different demand from those of 'mature' or 'old' households. Ethnicity is another important factor which should be taken into consideration in market segmentation.

The effect of changes in living patterns is yet another consideration in marketing management. The trend towards greater urbanization and rising real incomes has changed the physical equipment of the household and the behaviour patterns of its individual members. Almost every household has some form of refrigeration and an increasing number have freezing facilities available. The possession of television sets, radios and videos by most households makes the dissemination of information through the media very convenient. Consumer education on certain aspects of seafood consumption is vital in the promotion of the industry. This, together with advertising of the product, could be done effectively through the media.

The peripheral location of the north undoubtedly has its limitations by way of distance from major population centres and the relative isolation experienced. Yet, this same factor can be used to its advantage if an export orientation for high value species such as prawns is developed and trading relations extended to the neighbouring Asian countries. The demand for this product is very high in these countries and to Australia this trade will be a valuable source of foreign exchange.

Proper marketing management of the seafood industry should overcome problems relating to climate, peripherality or accessibility. It should take into consideration the nature of demand and supply in a particular area and be able to develop a program which is satisfactory to both the consumer and the retailer. Further, owing to variations in demographic and socio-economic characteristics of a region no two consumers will be identical. This requires careful market segmentation, and it is a challenge to the marketers to cater to this high level of consumer heterogenity by developing new techniques, new products and new services.

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Table 1

Average Weekly Household Expenditure ($) of Select Commodity by Income Groups

COMMODITY / INCOME ($)	UNDER 80	80-139	140-199	200-259	260-339	340 OR MORE	ALL CAPITAL CITY HOUSEHOLDS
Meat and Fish	4.45	6.37	7.78	8.79	9.18	11.51	8.36
Meals taken out	1.61	3.16	4.85	6.30	9.07	13.39	6.98
TOTAL HOUSEHOLD EXPENDITURE	66.27	114.64	148.21	190.11	223.12	295.02	184.14

From: Household Expenditure Survey 1975-76. ABS, Canberra

Table 2

Form of Seafood Consumption by Household Composition: Percentage Occasions

HOUSEHOLD COMPOSITION / FORM OF SEAFOOD	FRESH SEAFOOD	FROZEN PRE-PACKAGED	SMOKED, KIPPERED, CURED & DRIED	CANNED	TAKE-AWAY
Single adults	80.0	30.0	18.0	66.0	92.0
Adult groups	87.5	35.8	18.3	73.3	81.7
Adults + 1 or 2 children	90.8	39.1	28.3	81.0	83.7
Adults + > 2 children	95.6	51.1	14.4	87.8	92.2
Mixed groups	94.4	25.0	27.8	88.9	72.2

Table 3

Form of Seafood Consumption by Income: Percentage Occasions

INCOME GROUP ($) / FORM OF SEAFOOD	FRESH SEAFOOD	FROZEN PRE-PACKAGED	SMOKED, KIPPERED, CURED & DRIED	CANNED	TAKE-AWAY
< 8,000	100.0	9.1	9.1	45.5	63.6
8,001-18,000	87.2	46.2	21.8	88.5	85.9
18,001-35,000	89.5	46.4	25.4	80.9	85.6
35,001-75,000	93.5	34.4	23.7	82.8	89.2
> 75,000	89.8	21.6	14.8	68.2	79.5

Table 4

Form of Seafood Consumption by Ethnic Origin: Percentage Occasions

ETHNIC ORIGIN / FORM OF SEAFOOD	FRESH SEAFOOD	FROZEN PRE-PACKAGED	SMOKED, KIPPERED, CURED & DRIED	CANNED	TAKE-AWAY
Oceania	86.5	34.3	18.8	70.6	81.2
Aboriginal & Islander	100.0	20.0	0.0	20.0	100.0
Adriatic	96.8	22.6	9.7	93.5	80.6
W European	97.6	47.6	14.3	81.0	92.9
E European	100.0	40.0	80.0	100.0	100.0
British	90.6	52.1	29.1	92.3	94.0
Asian	92.6	22.2	33.3	88.9	63.0
American	100.0	66.7	33.3	66.7	66.7
Mixed Household	100.0	0.0	100.0	100.0	100.0
Not stated	100.0	66.7	33.3	100.0	100.0

Table 5

Form of Seafood Consumption by Religion: Percentage Occasions

RELIGIOUS GROUP / FORM OF SEAFOOD	FRESH SEA-FOOD	FROZEN PRE-PACK-AGED	SMOKED, KIPPERED, CURED & DRIED	CANNED	TAKE-AWAY
Catholic	89.3	41.7	21.4	75.0	85.7
Other Christian	93.4	45.3	23.6	85.8	87.7
Non-Christian	100.0	25.0	25.0	100.0	50.0
Greek Orthodox	100.0	21.7	8.7	95.7	82.6
No religion & not stated	84.5	30.3	22.6	70.3	81.9
Other	100.0	0.0	0.0	0.0	0.0

Table 6

Meal at which each form of Seafood was Served at Home: Percentage of Occasions

FORM OF SEAFOOD	BREAKFAST	MIDDAY	EVENING	OTHER & NOT SURE
FISH				
Fresh	1.7	4.1	96.1	1.9
Frozen pre-packaged	6.2	10.2	75.1	10.2
Smoked/dried	7.8	12.7	71.6	11.8
Canned	1.9	56.5	41.9	7.8
SHELLFISH				
Fresh	-	7.9	84.5	11.7
Frozen pre-packaged	-	2.0	80.0	18.0
Smoked/dried	7.7	15.4	61.5	15.4
Canned	0.5	21.0	47.3	34.4

Table 7

Cooking Method for Fish and Shellfish Served at Home: Percentage of Occasions

COOKING METHOD	FISH	SHELLFISH
Fry and/or crumb	39.8	50.2
Boil and/or steam	6.0	24.1
Bake	13.8	-
Straight	11.9	14.6
Curry	6.1	3.3
Grill and/or BBQ	20.6	5.7
Other	1.9	2.2

Table 8

Source of Seafood Purchases: Percentage Occasions

SOURCE OF PURCHASE / FORM OF SEAFOOD	FRESH	FROZEN PRE-PACKAGED	SMOKED, CURED, DRIED	CANNED
Chain supermarket	7.4*	89.7	84.0	89.5
Local supermarket	2.6	15.8	21.7	18.4
Fish and chip shop	1.4	-	-	-
Fish shop	49.4	3.3	7.5	-
Commercial fish market	6.3	-	-	-
Fish van	4.9	-	-	-
Friends or relatives	47.3	-	0.9	-
Commercial fisherman	4.6	-	-	-
Private supplier/wholesaler	13.9	-	0.9	-
Butcher	27.6	-	-	-
Overseas/inter-state	-	-	0.9	0.8
Make own supplies	-	-	3.8	-
Personal catch	1.2	-	-	-
Delicatessen	-	-	-	0.3

*Expressed as a percentage of all consumers in particular form of seafood

Table 9

Complaints regarding different forms of Seafood

COMPLAINT / FORM	FRESH	FROZEN PRE-PACKAGED	SMOKED, CURED, DRIED	CANNED
Poor Packaging and presentation	11.0	5.6	7.4	2.5
Poor quality, taste and smell	33.7	81.7	66.7	40.5
Price too high	66.3	14.1	25.9	36.7
Unavailability	8.0	1.4	22.2	11.4
Suspect Product	7.4	15.5	-	24.1
Other	0.6	-	-	-

Table 10a

Average Weekly Household Expenditure ($) of Select Commodities (without children) by number of adults

COMMODITY / NUMBER OF ADULTS	1 ADULT	2 ADULTS	3 OR MORE ADULTS	ALL HOUSEHOLDS WITHOUT CHILDREN
Meat and Fish	3.56	6.96	10.72	6.49
Meals Eaten Out	3.71	5.37	9.42	5.47
TOTAL HOUSEHOLD EXPENDITURE	86.18	150.85	232.87	143.57

From: Household Expenditure Survey 1975-76. ABS, Canberra

Table 10b

Average Weekly Household Expenditure ($) of Select Commodities (with children) by Household Composition

COMMODITY / HOUSEHOLD COMPOSITION	1 adult with children	2 adults with 1 child	2 adults with 2 children	2 adults 3 or more children	3 or more adults with children	All households with children
Meat and Fish	6.16	7.49	9.00	10.65	13.74	9.68
Meals Eaten Out	4.36	5.45	6.35	6.13	11.07	6.76
TOTAL HOUSEHOLD EXPENDITURE	122.43	174.61	198.24	199.51	281.87	202.24

From: Household Expenditure Survey 1975-76. ABS, Canberra

ECONOMIC DEVELOPMENT PROBLEMS IN REMOTE ABORIGINAL COMMUNITIES

OWEN STANLEY

In this paper I have two aims. Firstly, I examine how closely large Aboriginal communities in remote Australia follow the paradigm of an underdeveloped country found in the literature on economic development and secondly I discuss the prospects for long term development in these communities. For the purpose of the following discussion the word 'community' is used to mean a settlement, mission or Aboriginal town and the associated outstations in an area. Five communities are used as a data base for discussion (see table 1).

While it can shed some light on the development problems of Aboriginal communities, traditional economic theory cannot be applied without some adjustment since it is concerned mainly with third world countries and there are many differences between these and Aboriginal communities. Economic development is not unambiguously defined in the literature but it is generally used to mean a sustained increase in real income per head. The notion of 'income' is used broadly enough to include many quality-of-life goods (such as health and education) and some writers insist on additional characteristics such as a redistribution of income toward the poor and a high degree of political freedom and independence from foreign control.

Countries which are considered to be undeveloped have some or all of the following characteristics. Firstly, per capita income is low. This is usually so despite the existence of a very small, powerful and very wealthy elite whose orientation is often to foreign cultures, goods and investment. There is also chronic underemployment on the land and unemployment in the towns. Secondly, the rate of growth of population is high, often over 3 per cent per annum, and is highest within the country amongst the poor. Thirdly, there is technical, economic and ethnic dualism. That is, production techniques, housing and goods in the city are modern while conditions in rural ares are technically primitive. The urban dwellers are also considered sophisticated by comparison with the rural people. The actual amount of trade between country and town may not be great with a large proportion of town expenditure going on imported goods. The rural economy may also be a non-cash economy and this further separates the sectors. All this means that the stimulation of economic activity in the town may not cause improvements in the rural areas. Fourthly, the culture will often lack - or may even be hostile to - a materialistic orientation. This means that although the people may desire a modest increase in income or - more likely - find that their high population growth is lowering their standard of living, their attitudes to work and saving are not consistent with their modest material desires. Of principal importance to development are entrepreneurs and they are often few. These are individuals who constantly seek new markets, products and processes and, when successful, provide employment and opportunities for investment for others in the community. The culture will often give such a person little status or even regard him as a near-criminal and institutions may exist to prevent his activity. Fifthly, the level of education and health will often be low and this results in labour having low productivity and having little adaptability. Sixthly, institutions may exist to limit trade, discourage investment, and otherwise prevent economic change. Finally, there is a lack of capital. The cycle of poverty - low savings, leads to low investment, leads to low income - means that productivity in the community cannot be easily increased by adding to the capital stock. Such countries, however, often have abundant natural resources but they remain undeveloped.

A detailed discussion of development strategies will not be given here. They all involve, however, changing a number of the inhibitors to development. That is, they are designed to increase savings, to reduce the population growth rate, reduce unemployment and underemployment, to bring the rural economy into the market economy, to increase productivity on the land, to change attitudes and controls that inhibit work and entrepreneurship, and to lead to the exploitation of the country's resources.

The economies of Aboriginal communities are somewhat different from those described above and the similarities and differences will now be outlined.

To begin with, the term 'development' needs reinterpretation. It is true that Aboriginal per capita cash incomes are low - probably about one third of European Australians' incomes - and the notion of development in the Aboriginal context should involve an increase in cash incomes. However the most concerning aspect of the Aboriginal situation is that the great majority of cash incomes come from direct government payments to individuals or from institutions funded by the government (council, schools, hospital, housing) or from institutions dependent on government subsidies (often clothes making, or cattle enterprises etc). Thus the notion of development suggested here is that of increasing per capita income while gaining independence from government funds in excess of funds usually received by a remote European community (DSS payments, standard council subsidies etc). This is not to suggest that Aboriginal communities do not have a legitimate claim to special assistance. However, their economic dependence makes their welfare dependent on the whims of European Australian politics, subject to the dictates of European officials and laws and robs them of a sense of independence and self confidence. For these and other reasons, Aborigines want more economic independence and this should be incorporated in our definition of economic development.

While some writers on Aboriginal problems feel strongly about inequalities that can be found in communities in the distribution of income (between men and women, or between land owners and non-land owners) it is my belief that it is inappropriate to impose western notions of egalitarianism on the situation.

As a background to the following discussion the examples of four Northern Territory communities and one Queensland community will be used. Table 1 gives some relevant data for the communities. The dates under the name of the community give the year in which I collected the data.

This sample reflects the diversity and similarities of the communities. The members of the Gagudju Association, for instance, receive a substantial income from mining royalties, Nguiu and Mornington Island are ex-missions, Daly River Mission (DRM) is still a mission and Peppimenarti is composed of people from DRM who went back to the Daly River Aboriginal Reserve to establish a cattle enterprise and to live a more traditional life style. All of the Gagudju live in outstations while outstations are only of minor significance at Nguiu, DRM and Peppimenarti and do not exist at all on Mornington Island. The only community with a single Aboriginal language is Nguiu. The town structures of Nguiu, DRM and Mornington Island have the appearance of a European country town, while Peppimenarti is substantially different with a town plan reflecting Aboriginal beliefs and relationships. The housing stock for the Gagudju is elementary while it is most sophisticated at DRM.

In each case the formal political control of the community is in the hands of the Aboriginal people. Europeans in the communities, however, have varying degrees of influence because of their religious, administrative and technical roles. The table shows the percentage of managerial positions held by Europeans.

TABLE 1

Characteristics of the Sample Communities

	Community				
	Gagudju Association (1982)	Nguiu (1981)	Daly River Mission (1982)	Peppimenarti (1982)	Mornington Island (1982)
(a) Total Aboriginal population	316	1082	209	241	763
(b) % of Abor. pop. under 18 years	43	52	49	55	47
(c) % of managerial positions held by Europeans	100	90	67	71	53
(d) % of Abor. workforce unemployed	NIL	19.9	9.5	40.0	NIL (% CDEP is 64.5)
(e) % of Abor. workforce in council and housing jobs	0	31.3	68.6	3.0	80.1
(f) % of Abor. workforce in production and trading enterprises	95 (including ANPWS)	33.5	10.5	63.6	10.2
(g) Approximate area of land owned by Aboriginal community	5,220km^2	2071km^2	Nil (4152 ha. Mission Land)	7,000km^2	1190km^2

In each case it is very high. The particular percentages, however, do not reflect the degrees of the hidden political power exercised by Europeans. Mornington Island, for instance, has a relatively low percentage of managerial positions held by Europeans. However, many Aborigines complain of undue European control and influence. The percentages at Peppimenarti and for the Gagudju are high, but the dominance of Aborigines overall means that Europeans are relatively weak. These high percentages do indicate, however, that European attitudes are important in determining at least minor actions and policies.

Population size varies greatly between the communities; however, they all have a very high proportion of young people. With improving health this means that population growth rates are likely to be very high and this creates some typical development problems which will be discussed later.

Unemployment in the communities is usually very high. In Mornington Island some 64.5 per cent of the workforce was on CDEP. Under this programme, unemployment benefits (UB's) are paid to the community who then use that money to employ people who would otherwise be unemployed. At Mornington Island the employee is paid at the UB rate he is entitled to as unemployed. Thus the workers in the CDEP may be regarded as being unemployed for our purpose. The unusual case is the Gagudju Association which is fortunate in being able to provide employment itself, or through Australian National Parks and Wildlife Service for all members who wish employment. The consequence is that no members receive UB.

The employment position in all of the communities other than the Gagudju is very fragile because much of the employment is for the council or in the provision of housing. The need for such work is great at the moment because the communities are being provided with modern facilities. However, many backlogs in facilities are being overcome and employment in these areas will be greatly reduced in the future. On the other hand, employment in production and trading institutions is unlikely to grow rapidly in the future. Finally, almost all of the funds for council and housing are direct government grants, and most of the production activities receive government subsidies (excluding Gagudju activities). This makes future employment sensitive to government policies.

All of the communities other than that at DRM 'own' substantial areas of land although the nature of the titles varies. The land owned by the Gagudju Association and Nguiu is Aboriginal freehold, as defined under the Aboriginal Land Rights (Northern Territory) Act 1976. The land at DRM is freehold and is owned by the Catholic Church. The land worked by Peppimenarti is Aboriginal freehold but there are many owners of the land who do not live at Peppimenarti and who may return to their land in the future. In the interim, Peppimenarti is paying a royalty on cleanskin cattle turned off to the Northern Land Council, pending a settlement of the land ownership issue. Mornington Island is owned by the Queensland Government but leased to the Mornington Shire Council for 50 years.

We will now consider how closely Aboriginal communities correspond to the paradigm underdeveloped country. Most of the observations are drawn from the sample communities although some are derived from other communities.

Firstly, most communities, and not just the sample communities, appear to have high population growth rates, high underemployment and high unemployment.

Secondly, dualism exists. In fact there now tend to be three sectors in the communities: outstation Aboriginal people, Aboriginal town dwellers and European town dwellers. The relationships between Aboriginal outstation and Aboriginal town dwellers tends to be close with frequent movement between town and outstation. The outstation people, however, tend to live a more traditional lifestyle. The Europeans who live in Aboriginal towns generally live apart from the Aborigines. Their housing is often located in separate areas, their incomes are much higher than most Aboriginal incomes, they are usually trade, professional or administrative personnel, they trade directly with the outside European world rather than with community stores, their children are often in

boarding school or the people leave before local education deficencies retard their children's education, and they often mix socially only with other Europeans.

Thirdly, these economies are very 'open' since few locally consumed goods are locally produced. Thus almost all of the multiplier effects of an increase in expenditure occur elsewhere in Australia. That is, an increase in government spending, say, will increase income and expenditure once over in the community and further stimulatory effects will occur in Darwin or elsewhere among the supplying and transport industries, and then generally throughout the Australian economy. Imports into Nguiu in 1980-81, for instance, were about $2.2m and this was about the same as the net government subsidies to Nguiu. Indeed, Darwin and other Northern Territory towns are substantially dependent on the financing of Aboriginal communites.

It is also true that Aboriginal culture is less materialistic than many others. Many material goods are desired greatly - vehicles, some foods, some form of permanent housing, health, education, and even video T.V. recorders, for instance - but a person's status is not so immediately defined by how hard he works or by his accumulated wealth. Indeed many regard personal accumulation as un-Aboriginal. Income distribution rules within the community often result in the earner of an income and his immediate family owning only part of that income. This separation between the earner of the income, and the owner of the income creates an externality with the consequent reduction in effort by the income earner. Under these circumstancs it is not surprising that there are few Aboriginal entrepreneurs in the traditional economic sense.

The peculiar situation of Aboriginal communities has led to the emergence of a special type of entrepreneur, however. Because the major source of resources is the government, an entrepreneur has emerged who devotes much of his time to dealing with government departments in an attempt to capture more resources for his community. He may be involved in Aboriginal political organisations and will usually have a better command of English and may be more numerate than many of his fellows. He is often not an important land owner but has importance in his community from his ability to manipulate the European world. Sometimes he is a part-Aboriginal who had been taken from his family when young and educated in European ways and has since gained considerable work experience in the European world. These entrepreneurs are as crucial to the economic structure of the community as are the traditional entrepreneurs of economics in a more market and avarice-oriented society. They are, nevertheless, too rare.

Europeans have long anticipated a change to more materialist ways. Early missionaries often regarded the older generation of Aborigines as unable to change and emphasised indoctrination of the children. The same attitudes exist among many Europeans in these communities today who declare that the next generation of Aborigines 'will be different'. Early Europeans were also happy to encourage Aborigines to become dependent on or addicted to introduced tobacco and alcohol so as to gain their labour. It is clear that this approach was successful since, in the early days, large numbers of Aborigines moved to concentrations of Europeans (towns like Palmerston and Pine Creek, the Daly River Agricultural area or station homesteads) to work for rations of European foods, drugs, clothing and other goods. Traditional economic theory approves of this approach since it draws Aborigines into the market economy although many people today have doubts about its morality.

Some people in the past and today who were concerned with Aboriginal development have argued that this process needs to be developed further. That is, attempts should be made to destroy most or all of Aboriginal culture because it conflicts with the individualist work ethic. Once that is done, the theory goes, Aborigines would be able to compete in the European world like everyone else. This approach is unacceptable for many reasons. For instance, we do not use that approach to problems of Europeans for the purpose of improving their standard of living. Also Aboriginal culture is unique and is likely to aid our understanding of human social systems generally and so it is of great scientific value. Most importantly in this context, however, is my belief that the above hypothetical process involves time lags that are unacceptable. Great success

was achieved in the south-east of Australia in destroying traditional culture but Aborigines are not found scattered randomly throughout the income range as they ought to be after a century. Their desires to retain their own culture, legal restrictions on their income-earnings and asset-owning abilities, personal and employment discrimination by Europeans, the rural economic environment in which most of them live and their inital poverty are all contributing causes. Most of these factors apply to Aborigines in remote Australia today so that it is likely that the lag between the decline of traditional culture and true assimilation will be so long as to be unacceptable. Further, if the Aborigines are to develop as communities then the coherence provided by traditional culture is required to control strife that follows change and to enable collective actions to be undertaken.

Most Aboriginal children have access to schools at an elementry level. They teach English and elementary mathematics and these skills are essential for development. In addition, in some communities many people have had a practical education in the building trades, mechanics, cattle work, store keeping, sewing, hospital work, banking and teaching. They are rarely educated to the certificate level, however , and only sometimes occupy the managerial positions in the activity. This situation is created partly by the mistaken belief that a person needs to be a fully qualified tradesman to manage a business. One does not need to be a qualified motor mechanic to manage a garage, or to be expert in all aspects of store business to manage a store, or to be a qualified builder to manage housing construction. The skills of management involve being able to hire and fire workers, control labour and material resources and being able to appreciate revenue and cost implications of actions. Technical labour and advice can be hired when needed. It is likely that with appropriate education in small business management - which is not provided at the moment - more Aboriginal people could manage their enterprises and so extend Aboriginal control within their communities.

Finally, and unlike many underdeveloped countries, Aboriginal communities have few resources, despite the operation of the Land Rights Act. This will be discussed in detail later.

While the above discussion suggests that there are strong similarities between Aboriginal communities and third world countries in their basic characteristics, there are a number of differences between them in the degree of control the people have over their own destiny which place Aborigines in a worse position than their third-world counterparts. In this regard Aborigines can be grouped with Indians of North America.

A Small Minority

Aborigines are a very small minority in a population whose majority is wealthy and racially different. This means that Aborigines are very weak politically, and the European majority have little knowledge and understanding of the problems of Aboriginal people. There is, however, considerable sympathy for Aborigines among many Europeans - as shown by the referendum result of 1967. Nevertheless, Aborigines are not in a position to push their cause politically unless it has substantial support in the European community.

Internal Economic Control

Aborigines are not in a position to control their own internal economic environment to the same degree that third-world countries can and so Aborigines have a smaller range of policy options open to them. Traditional development policies involve manipulation of the economic environment by using direct and indirect taxes and subsidies, wage and price controls, tariffs, exchange rate regulation, nationalization, foreign investment and foreign borrowing, migration controls, and controls over foreigners.

Community government structures have been developing rapidly but their controls over the local economic environment are still very weak. Firstly,

European Australian laws, conventions and notions of accountability establish the legal structures and behaviour for many Aboriginal institutions. Secondly, many of these institutions would not be able to operate without subsidies from the Departments of Community Development, Education, Health and Aboriginal Affairs and the A.D.C. and these agencies insist that recipient bodies conform to structures and behaviour that are consistent with their service conventions. It should be noted that these conventions are not always followed by similar European institutions where they are independent of government aid.

Thirdly, government grants are specified by type (grants to housing or towns maintenance, for instance) and are directed to particular institutions whose behaviour is monitored. This practice causes misallocation in the conventional economic sense. That is, the allocation of these resources does not reflect the values of people in the community. For instance, the Gagudju Association is the only community in the sample which has control over all of the resources and it chose to build only elementary houses and to direct resources into long term investments. In many other communities, a large part of the community's resources are being used to construct substantial European-type houses and one suspects that the communities would have preferred to do something else with some of those resources.

Four obvious reasons exist for this misallocation. Firstly, the government needs to engage in a certain amount of 'show-piece' expenditure to appease visitors who complain about the state of housing and facilities in the communities. This partly explains the emphasis on new buildings and town construction. In many places the need for these facilities is great, of course. Secondly, many Europeans fear that Aborigines will 'waste' resources if given complete control. Thirdly, many Europeans feel that since they are the donors they have a 'donors right' to determine what is done with the resources. Finally, the fact that grants come from different government agencies leads to misallocation because of the way in which allocation questions are asked. For instance officials responsible for housing funding ask 'do you need more or better housing' and the answer to that type of question is always 'yes'. The appropriate question is 'if you have $x, how much do you want to spend on housing?' The answer to that question, for instance, may lead to a reduction in housing and town maintenance expenditure and an increase in spending on enterprises.

Communities have, however, devised a range of internal economic controls and they are listed below. For the purpose of illustration, the names of communities in which the various controls can be found are provided in brackets.

(i) Income Taxes

Most communities impose income dependent charges on Aboriginal residents although the levels of these taxes are low by comparison with income taxes in the European community. Their nature varies considerably between communities and below is a list of characteristics that are used to determine the tax payable.

(a) Taxes may vary progressively with income. For example, people receiving low incomes may not be taxed at all. Low incomes usually correlate with DSS incomes and it is common for these incomes to be exempt (Daly River Mission).

(b) Taxes may vary with the individual's participation in benefits. For example, taxes may be used, inter alia, to provide lunches for school children, and the tax is levied on the basis of the number of children the income recipient has (Nguiu).

(c) The source of the income may determine the tax. For example, incomes earnt from local organizations may be taxed, while UB, and pension incomes, and incomes earnt from outside the community are not taxed (common).

(d) Nature of income payment may be used to determine the tax. For example, only incomes received by cheque may be subject to a special tax (Arukun).

(ii) Community Direction of Resources

In some communities there is central control over resources, (Gagudju Association, Peppimenarti, DRM), while in others, control is decentralized (Nguiu, Mornington Island). In the former case some resources can be swapped between activities so that profitable activities can be used to support unprofitable but worthy activities - for example, the beer club may support housing or food for old people and children. Community control may also extend to control over labour. For example, the community may expect people on UB to work in the community on town beautification or in stock camp for no additional payment. It is common for the housing association to have a waiting list and a family's position on the list may depend on its size, perceived poverty, period of residence, or the importance of the family in the community as land owners.

(iii) Manipulation of Prices

Prices are manipulated to achieve particular allocative and distributive effects. For example, the prices of basic foodstuffs such as bread, flour, rice, tea and fruit are often low while the prices of beer, tobacco products, and soft drinks are high to discourage their consumption for health reasons and to subsidise the prices for the basic foodstuffs. Rents may also be set so as to subsidise the poor and needy.

(iv) Purchasing and Selling Policies

Protection for local enterprises is often provided by specific buying and selling policies within the community. The store may only buy, or show strong preference for, locally made clothes (Port Keats) or bread or eggs or vegetables (Nguiu, DRM). The housing association may use local timber and sand (Nguiu, Peppimenarti). Where it is cheaper for these goods to be imported these policies provide protection for local industry.

(v) Informal Allocation and Redistributive Mechanisms

'Informal mechanisms' in this context means those mechanisms which do not operate through European institutions. Such allocative and distributive actions take place in response to family and ceremonial obligations, and as reflections of land owning and political patterns. Gambling has developed as an important redistributor of some resources such as beer and cash. These informal mechanisms sometimes reinforce formal mechanisms (for example, the soup kitchen and informal gifts to the needy reinforce each other) and sometimes they conflict (where increased wages are paid for extra effort but where the worker's obligations result in him receiving only part of the increased rewards).

Competition between Communities

Communities are often in competition with other Aboriginal communities (Peppimenarti and DRM for instance) and with the European world for population and for particular individuals. This means that the ability of a community to impose taxes or restrictions on its population is limited. Prohibition on the consumption of alcohol in a community, for instance, may lead young men, particularly, to go to another community or to a European town. Similarly, if prices for durable goods become high, people may purchase them elsewhere. The more remote the community is, of course, the greater is its monopoly power and the greater is the control over people and resources that can be exercised.

Apart from the fact that Aborigines have relatively little control over their resources, the development problem is worsened by the fact that these resources are few and, by their nature, they are unlikely to provide substantial employment and profits.

The resources required to sustain a reasonable growth in per capita income when the population is growing rapidly are always great and this is a problem that burdens Aboriginal communities as well as the typical poor country. The Harrod-Domar growth equation can be used to illustrate this point. If 's' is the proportion of income devoted to savings and to increase in capital stock, 'n' is the desired growth in income and 'g' is the marginal capital-output ratio (the increase in the value of capital stock required to generate - in company with other factors of production - a $1 increase in income) then

$$s = n.g$$

Thus if we suppose the population has a growth rate of 3 per cent per annum, 'g' is 5 (a common figure used in such analysis), and the community desires to retain its existing standard of living, then without capital inflow - the community must have a net savings rate of

$$s = (3\%)\ (5\ )$$

$$= 15\%$$

That is, expenditure in new plant must take place at a rate of 15 per cent of the community's income in order to sustain per capita income. Nguiu will be used to illustrate this point, although importance should not be attached to the particular figures derived since this is just a first approach to the problem. In 1980-81 total Tiwi disposable income for Nguiu was $2.007 million. If this is to grow at 3 per cent per annum then there must be net additions to capital stock in that year of $301,000 and greater increases in capital stock from then on. Since most Tiwi cash incomes come as transfers from the European community at present this investment must be taking place there, or the increase in Tiwi incomes constitute a decrease in incomes in the European community.

However, if our aim is to have a self supporting community generating an income of $2.007 million dollars the required capital stock (assuming the marginal and average capital - output ratios are the same) would be about $10 million. The outcomes in this example depend crucially on the assumed capital-output ratio. If it is less than 5, for instance, then capital of less than $10 million would be required while if it is greater than 5 then more capital would be required. Since at these low levels of income much of the capital stock is in low return activities, such as housing, education, and council work, it is likely that the capital-output ratio is high rather than low.

Despite this qualification it is obvious that $10 million or so is a very large capital stock for a poor remote population of 1100 people to generate. It would not, however, be such a large amount for a government to establish as an investment fund.

Resources Available

The communities have meagre economic resources, and they will be discussed in the traditional order of land, labour and capital.

Many communities own substantial tracts of land, as illustrated in the table above. In the Northern Territory as a whole, Aborigines have freehold title to 362,930 km2 and leasehold title to 26,759 km2. These two areas constitute 27 per cent of the area of the Territory while their population is 24 per cent of the total for the Territory. Further, land claims by Aborigines exist over almost all unalienated crown land and the proportion of Territory land they own will increase in the future. The acquisition of land under the Land Rights Act has been of enormous importance to the Aboriginal community from cultural and

religious points of view. It may also constitute a major economic resource in the future but for the moment, with minor exceptions, the land is only a minor economic resource. The land generally has low carrying capacity for cattle and has no or minor agricultural or horticultural potential. Many people have had unrealistic expectations about the economic implications of land ownership for communities. For instance, a station that has been purchased for Aborigines may have in the past supported only a few European families and a dozen contract workers for a few months of the year, while after its purchase some people expect it to support 50 to 200 Aborigines at a reasonable standard of living permanently. Clearly this is an unrealistic expectation even if best pastoral practices were used. Further, although Aboriginal land is usually owned collectively, from a European legal point of view, the Aborigines see it as being owned by particular individuals and groups so that the management of the land for the economic gain of the community can, at times, be difficult.

Particular areas of land, however, may be very valuable because of their unique characteristics. In particular, they may contain minerals or they may be suitable for tourist development, either of which may be a substantial source of income for the community. The Gagudju Association, for instance, is fortunate in having land which is valuable for both of those reasons.

A number of Aboriginal groups, particularly in the Top End, receive compensation from mining on their land. The nature and value of these compensations vary greatly depending on the laws, politics and local conditions surrounding the making of the agreements. For example, the Nabalco bauxite operation at the Gove Peninsula pays a royalty of 2.5 per cent on the value of output to Aboriginal interests, while BHP pays 3.75 per cent on its manganesse operation at Groote Eylandt, Energy Resources of Australia pays 4.25 per cent on its Ranger operations, and 11.5 per cent is paid on Magellan oil operations in central Australia. The details of the Nabarlek agreement are not public. Other benefits, in the forms of up-front payments, annual rents and the provision of other benefits exist and these also vary greatly between situations.

The Aboriginal Land Rights Act places Aborigines in the Northern Territory in a strong position with respect to payments from mines on their land by comparison with other Australians. The usual legal position in Australia is this. Governments (usually State Governments) have declared their ownership of all minerals in their areas of control. This gives them control over all aspects of exploration and mining and they receive benefits from royalties, special charges and other conditions imposed on the miners. Except where the Commonwealth Government controls the land directly or in the case of uranium in the Northern Territory, the Commonwealth Government receives income benefits only from company tax receipts from such operations. The owners of the land on which the minerals are found, regardless of title, have no control over exploration and mining and have no claim for income from the operation, other than for compensation for damages to the land.

The Land Rights Act, however, makes the payment of income to Aborigines in the Northern Territory compulsory when mining takes place on Aboriginal land. The act provides that a minimum royalty be paid by miners of 2.5 per cent of the value of minerals mined other than for oil and gas, when it is 10 per cent. In addition, miners must reach an agreement with the local land council over appropriate compensation before mining can take place and this has led to compensations in excess of the minimum required by law. The Commonwealth Government can override any decision by the parties in the 'national interest'.

The Act also dictates how the legal minimum royalties must be disposed. It states that

(a) 40 per cent of the royalties must be paid to the Northern Territory Land Councils to meet administrative costs, with any surplus being distributed to their local communities.

(b) 30 per cent of the royalties must be paid to the local community affected by the mining.

(c) 30 per cent of the royalties must be used for the benefit of aborigines in the Northern Territory, as the Minister (with Aboriginal advice) directs.

Compensation in excess of the legal requirements can be distributed according to the agreements between relevant bodies. If the particular agreement does not specify the distribution, then the local land council determines its distribution.

Aborigines in the Alligator Rivers region are fortunate in material terms in having four uranium mines from which substantial royalties are likely to be earnt over the future. They are the Nabarlek, Ranger, Jabiluka and Koongarra mines. The Gagudju Association, for instance, has received $1.3 million in up-front moneys, receives $200,000 per year for 26 years rental and a share of the royalties from Ranger Uranium Mine (of about 100,000 tonnes of U308). Members of that Association will also earn money from the much larger Jabiluka mine (of about 205,000 tonnes of U308) and from the smaller but rich Koongarra mine (of about 13,000 tonnes of U308) if the government allows their development. These funds can provide the basis of continued development of the Association.

There are costs for Aboriginal people when mining takes place on their land, of course. These include alienation and damage to their land, part or all of which may be regarded as being sacred, fear of the consequences of digging into the land or disturbing spirits by blasting, the unwelcome presence of Europeans, the development of European towns in their country and loss of control over their social and economic environment. It is conceivable that a bad mining experience could cause such damage to the local community that it may retard development, despite the receipt of royalties. The mine could lead to the collapse of social and economic controls through disputes and alcoholism, for instance, so that local economic activities collapse and greater assistance is needed for the unemployed, children and the aged. Thus for the mine to be of benefit to the community all aspects of contact with the local community must be examined so that the local - sometimes fragile - social structure is preserved.

Finally, although the land councils receive royalties for distribution amongst the communities in their areas, these payments are unlikely ever to be sufficient to provide the basis for economic development for the communities generally. Thus mining has created inequalities in incomes and development potential between communities.

Like the Northern Territory generally, some Aboriginal communities have the potential for tourist development. Some communities, particularly those near Darwin, have sites that are very scenic or good for fishing, hunting, walking or possess interesting public Aboriginal art sites that may be developed in various ways for tourists. At one extreme the development may involve a large tourist village with organised tours and at the other it may simply involve bus tours through the area. The tourists may be isolated from or integrated into the community, as the Aboriginal people desire. Consider a hypothetical tourist development involving the building of a motel in a remote part of the community's land with good fishing, hunting and walking areas. The benefits include the following: employment in the construction stage of the motel, employment in cleaning and maintenance of the units, in organising tours and fishing trips, markets for many goods including local food (bush tucker,cattle, vegetables, fruit), locally produced artifacts, pottery or clothes. In addition, of course, a well run motel may provide substantial profits for the community. Such a project is not without problems. Conflicts over whose land is to be used, the appropriate compensation for the land owners, the allocation of the new jobs, and the insidious effects of more constant contact with Europeans may become important. However, these should be handled satisfactorily with an adequate community government structure. It should be remembered, of course, that tourist developments will be in competition with each other. One established near Oenpelli, for instance, is likely to reduce the profitability of operations at Cooinda. Thus if tourist developments were to become common there is an argument for co-ordination.

Another major resource in the communities is labour. Some discussion has already been devoted to this and the development implications of the situation will be discussed here. To recapitulate, Aboriginal labour is usually unskilled or semi-skilled in terms of western techniques, rarely has entrepreneurial skills in the traditional economic sense, and there is usually substantial unemployment. European labour in the communities is usually managerial, professional or skilled labour and varies in dedication and ability.

Aboriginal workers are rewarded for their labours on a number of bases:

(a) People working for bodies that are funded directly from government organisations are usually paid award rates. They include such bodies as schools, hospitals, clinics, police station and councils. Aboriginal-owned enterprises may also pay award rates. All of these bodies together usually employ a large proportion of the Aboriginal workforce in communities.

(b) Many Aboriginal-owned enterprises pay less than the award wage rates in an attempt to employ more workers than otherwise. These may include cattle activities and clothes making enterprises.

(c) Some activities have no awards and wage rates are determined by competition or tradition. Art and craft production and contract mustering and fencing activities are often rewarded in that way.

(d) Many Aborigines are employed through the CDEP programme. In this case the hourly wage rate is lower than the appropriate award rate.

(e) Many Aborigines receive unemployment benefits directly and this means that actual wage rates cannot fall much below the unemployment benefit. Some Aborigines do in fact prefer to work, although they earn less than the UB.

One effect of these reward systems is that there is relatively little downward flexibility in wage rates and consequently the community cannot increase employment by such changes. Unemployment in the communities is structural and is unlikely to be improved by recovery elsewhere in the economy. Another effect is that the relatively high wage rates and relatively poor labour performance because of lack of skills and experience, obligations and lack of interest in material things mean that labour is costly by world standards. It has been a common mistake for Europeans to encourage the development of very labour intensive activities in the communities when labour costs are high. The communities cannot compete with foreign -produced cheap non-fashion clothing, for instance.

The ideal arrangement is for the nexus between European wages and Aboriginal wages for Aborigines living in the communities to be broken and for Government funding authorities to encourage the development of a local wage system. Some changes have already been made in this direction (including the CDEP system). The net effect of a proper restructuring of wage rates would be a decline in unemployment, the possibility of more local enterprises becoming sustainable, and the use of more labour intensive techniques than would otherwise be possible. Indeed, for many communities a suitable approach may be to set wages in whatever way would maximize total income for the community from trade with the outside world and then to rely on traditional and other redistribution mechanisms to establish equity.

Finally, the last resource to be considered here is capital. Communities do not generate substantial amounts of capital themselves. Few enterprises generate enough profit for reasonable expansion of their plant let alone provide capital for other activities in the community. The beer club is often an exception and profits are used to improve the comfort of drinkers and to finance social welfare projects. Further, low cash incomes, attitudes to consumption, and distribution rules make it difficult for individuals to save a high proportion of their incomes spontaneously. However, the evidence of the Gagudju

Association suggests that if a community has a high enough income and has an appropriate allocative organization then it may have a high savings rate. Since its establishment in September 1980 the Association has invested a large part of its income. It has purchased the Cooinda Motel, the service station at Jabiru East, the business of the Border Store, bought plant and established an earth moving business, established a hostel at Jabiru for Aboriginal trainees and visitors, acquired a mail run and invested in securities. In addition it has undertaken a number of welfare projects which has relieved the government of certain expenditures. The Association has established and runs two schools, built a number of houses, purchased vehicles for outstations, established a health service and provides a bus for the Aboriginal Women's Club at Jabiru. Meanwhile, cash distributions to members have been only about $2,000 each per annum. A sample of one experience is not a good sample. However it suggests that while Aborigines may have a low propensity to save as individuals they may have a high propensity to save collectively. At the moment, however, almost all investment undertaken in other communities comes from government agencies.

Industries

It can be seen from the above discussion that the communities have few basic resources which can provide the basis for substantial economic development. This problem is worsened by the fact that, with few exceptions, the industries that can be developed with these resources are very competitive by their nature and thus will yield only modest profits in the long run, even if managed according to the best practices. Grazing, horticulture, forestry, fishing, transport, contract mustering and fencing for European stations and arts and crafts production are of that nature. Collectively, they may provide substantial employment but will not in the long term provide substantial profits to provide a basis of independence. The exceptions are the 'windfall' activities of tourism and mining since they give rise to site rents. However, only mining is likely to have the possibility of providing substantial development funds.

Conclusions

The prognosis for Aboriginal communities is not good.

1. Apart from communities which experience very substantial windfall gains from mining or tourism, the communities do not have a suitable resource base to allow development which would substantially reduce their dependence on governments. Also, conventional development strategies which involve encouragement of industries will not solve the problem because of the competitive nature of the only industries which are viable in remote Australia.

2. As infrastructure work is completed, jobs will be lost and this will reinforce the need for a more flexible approach to wages and employment in the communities. Since real incomes are unlikely to increase dramatically, Aboriginal people will remain dependent on bush tucker and other traditional goods to supplement their incomes. The outstation movement will assist individuals in this although it may be costly in terms of infrastructure.

3. Modest improvements in the situation can be achieved by encouraging the development of control by Aborigines of communities' resources. This is likely to improve the efficiency in the allocation of resources by making the goods in the communities correspond more closely to individuals' and community desires. It may also lead to a greater community savings rate. In the long term the government should work toward global funding where communities receive grants in total and where the community can determine the allocation of funds. The government could improve things further by having a time plan for funds. This would allow the community to plan and further improve allocation of resources. The success of such a development depends crucially upon the establishment of successful funds recipient and allocative organizations such as the Gagudju Association. Great care is needed in their establishment to see that the members of the organization have much in common. This means that in some communities as presently composed, more than one organization will be needed.

4. The granting of royalty rights to Aborigines appears to be costly for the government since they reduce the ability of governments to raise royalties. However, if successful recipient organizations can be established royalties can be used as a substitute for government benefits expenditure for housing, health, and unemployment. Under these circumstances, the debate over royalty rights becomes partly a debate over the nature and level of grants.

5. If the pessimism expressed in this paper about the development potential of communities is accepted then the profitability criterion currently used by some government agencies for granting funds to communities appears to be of doubtful wisdom. In particular, it is likely to lead to a contraction of funds going to production activities, where profit potential may be easily calculated, and to an expansion of funds allocated to areas were profit potential is difficult to measure but where returns for the community may be low such as in infrastructure investment.

ASPECTS OF LABOUR USAGE IN ABORIGINAL OPERATED ACTIVITIES IN CENTRAL AUSTRALIA

STUART PHILLPOT

Animal production activities have been an integral part of the administration of Aboriginal affairs in Central Australia since the period of initial contact.

The proliferation of such activities reached its highest intensity during the welfare era (1956-72) when every Government Aboriginal settlement (as Government Sponsored Aboriginal communities were then called) and Aboriginal Missions had a wide variety of such activities.

Welfare Branch reports between 1956 and 1972 contain a wealth of facts and figures on the number of kilograms of bacon, the variety of vegetables, the dozens of eggs, the litres of milk and the kilograms of beef produced annually on different Aboriginal communities. The remnant infrastructure of such animal production can still be seen in all long established Aboriginal communities in the Northern Territory.

The one animal production activity that has persisted and continues to receive a measure of Government support is the production of beef cattle.

The reasons for the existence of beef cattle production on Aboriginal communities were described in Welfare Branch and mission reports. They were to:

- Increase the economic self sufficiency of a community;
- Maximise employment opportunities;
- Increase food self sufficiency.

The policy of pastoral property purchase adopted in the 197Øs also used the above reasons as its rationale and added a fourth,

- The provision of living space for a community.

Multiple objectives differentiate Aboriginal properties from white owned cattle stations, the sole stated objective of which is the generation of commercial profit. The existence of stated multiple objectives which, it should be noted, were set by white policy formulators and not by Aboriginal people, creates problems for Aboriginal cattle activities. On the one hand the fact that they take account of social as well as economic needs means that Aboriginal properties may follow management practices which would be alien to European properties and which lay them open to criticism, often ill-founded but nonetheless damaging. On the other hand these multiple objectives make the operation of Aboriginal cattle properties particularly difficult during the current process of structural adjustment in the organisation of the pastoral industry. This process has been characterised by the substitution of capital for labour because the downward trend in trade has reduced net return to beef producers. Since Aboriginal cattle stations aim to maximise employment opportunities, i.e., to be labour intensive, such a trend is obviously counter to their objectives. This paper examines labour increase on contemporary Aboriginal operated cattle enterprises in Central Australia, the most important region of the Northern Territory for this type of activity (Fig. 1). The analysis is preceded by a review of the adjustment between capital and labour in the Australian pastoral industry as a whole.

Before examining the nature of these problems and their effects on labour usage, it is useful to review briefly the nature of the adjustment process that is currently occurring in the pastoral zone.

Some General Trends in Australian Agriculture.

Any trends in beef cattle production on Aboriginal properties must be reviewed within the broader context of natural trends in primary production, and also within the more specific context of trends within the Northern Territory pastoral industry. In recent decades there has been a persistent restructuring of Australian farms, with the number of rural establishments declining by 12 per cent and the rural workforce by 20 per cent from 1953 to 1983. Over the same period agriculture's share of gross domestic product has declined from 19 per cent (1953) to 4 per cent (1982-83), and over the same period the price/cost ratio for farms has deteriorated, from 191 down to 85 (using 1980-81 as base year with an index of 100).

In general, then, Australian agriculture is made up of fewer, larger, more capital intensive farms using a smaller labour force and forced to achieve higher levels of efficiency if farm income levels are to be maintained. It would be unusual if the extensive beef zone had avoided such changes.

NT Trends

An examination of trends in the Northern Territory also indicates the same kind of structural change namely, an increase in the use of capital and a decrease in the use of labour.

Such changes also indicate a change in technology e.g., increased fences, yards and the use of airborne mustering. This in turn indicated changes in the quality of labour required i.e., pilots as against stockmen.

Land as the other major production factor has also undergone change. Graph 3 clearly indicates a change in average property size although this seems to contradict the general Australian picture of larger and fewer farms.

The explanation could be as follows. In 1971 Kelly argued that beef property sizes required rationalisation based upon the quality of land not quantity if economics of scale were to be achieved (1971, 71-85). Fig.2 suggests that more uniform distribution of evenly sized properties has emerged since initial European settlement although no overall increase in property numbers has occurred. The extent to which Government policy and market forces have influenced this pattern is difficult to discern without more data, the lack of which was noted by Musgrave (1983). The drop in property size during the beef slump does indicate that market forces have played a significant part in land size.

Some Characteristics of Labour Usage on NT Cattle Properties.

Waterhouse (1982) and Small (1982) have indicated there is a shortage of trained labour on cattle stations in the pastoral zone, that the labour shortage existed at all levels of production i.e. from tradesmen to rouseabout and that the shortage of labour was exacerbated by a high turnover of staff, in the Northern Territory Pathmanathan (1983) suggests this is related directly to the low wages.

He notes that 1 out of 3 employees on NT cattle properties are Aboriginal who are mainly employed as station hands and stockmen, with 7 per cent being employed as tradesmen and none as managers. Pathmanathan further suggests that Aboriginal employees have a lower rate of turnover than is the case with white employees.

The youth of employees was a further characteristic of labour usage, Pathmanathan calculated that 77 per cent of employees were under 30 and the largest group was below 20, the majority of whom have had very little experience in beef production. In short, labour usage in NT cattle enterprises can be described as young, highly mobile, poorly skilled and poorly paid.

Table 1

Aboriginal Cattle Properties in Central Australia 1982/83

Station Name	Capital $	Labour F/T	Usage F/T	Land Area square km	Herd Size
Amata	150 000	3	10	6 000	2 000
Willowra) managed as Mt Barkly) one unit	180 000	2	10	7 471	2 000
Ti-Tree) managed as Woola Downs) one unit	200 000	2	8	3 584	BTEC
Utopia	100 000	0	12	1 958	1 000
Yuendumu	150 000	3	7	2 201	1 000
Hermannsburg		0	14	3 807	2 000
Haasts Bluff O/Stn) Undunita) Tarawarra) managed as Ikunyi) one unit Kungiyuni) Tent Hill)	50 000	0	15	6 000	1 000
Santa Teresa	200 000	4	8	1 243	400
Alpara	60 000	1	15	4 000	200
Officer Creek	100 000	1	4	4 000	50
Kenmore Park	500 000	3	10	8 000	1 000
Ernabella	100 000	2	10	2 000	500
Mimili	280 000	1	8	2 889	BTEC
Mt Allen	500 000	5	5	2 359	3 000
Fregon	200 000	3	15	4 000	500
Warburton	50 000	1	8	1 500	800
Total 22 Properties, (15 units)	2 821 000	31	159	61 012	15 450
Average per Property Net figures rounded to the nearest $10 000	128 000	1.4 man weeks	7.2	2 773	702

Source: Institute for Aboriginal Development for Rural Extension Programme. Fixed improvement only.

Some Characteristics of Aboriginal Operated Cattle Enterprises

The question then becomes: do Aboriginal stations differ in their operations and in their use of labour? Trends for the industry as a whole suggest substantial differences between Aboriginal operated cattle activities in Central Australia and those operated by white pastoralists.

An examination of the production factors (land, labour and capital) indicate that Aboriginal properties have only 36 per cent of the capital that white enterprises have (table 1).

The average herd size of 702 head as against 7500 for white owned stations is not directly comparable since all Aboriginal activities have completed or are about to complete their respective BTEC (Brucellosis and Tuberculosis Eradication Campaign) programs, all of which have involved partial or complete destocking. The Territory general average is drawn from only white properties none of which had adopted programs at the time the general industry data was gathered. The apparent under-capitalisation on Aboriginal cattle activities may not be as great as it first appears since most Aboriginal cattle activities are located in or are close to a larger community which gives them access to a variety of resources at a lower cost (and some times at no cost) than those experienced by white pastoralists e.g., water, power, workshops, salvage material and the use of heavy equipment.

The facts remain that Aboriginal properties in Central Australia have smaller herds, are less extensive in size and are less capitalised than white cattle enterprises in the Territory as a whole. As such they can expect to experience far greater adjustment pressures than the more intensive capitalised white properties.

Aspects of Labour Usage on Cattle Stations

Thiele's (1982) Yugul, an Arnhem Land Cattle Station, is the only substantive work on Aboriginal cattle stations in the Northern Territory and in that work he listed four reasons for poor labour productivity in the Yugul Company:

Lack of training, skills, and experience;

Traditions incompatible with European work styles;

Lack of authority structure at the community and workplace;

Lack of control of the productive resources.

However, most of Thiele's study was based on field work conducted during the early stages of the self determination policy (early 1970s) and prior to the Land Rights Act. Aboriginal cattle activities in Central Australia have survived this period and are now six to eight years old as independent activities.

Further, only four out of 24 are still held under pastoral lease, the rest are held under Aboriginal freehold title. Despite differences, the reasons provided by Thiele's conclusions provide a useful taxonomy for examining labour usage on Aboriginal operated cattle activities. These are as follows: labour skills; traditional life; authority structure; resource control.

Labour Skills

In 1980-81 Phillpot and Mathewson conducted a survey of perceived training needs among the leaders of 10 Aboriginal operated cattle enterprises. The results of this survey indicated that those leaders interviewed were aware of a skill gap across the whole operational spectrum.

It would appear therefore that the lack of skills described by Thiele in the work on Yugul is perceived by leaders themselves as being general throughout the Aboriginal operated cattle enterprises. Pathmanathan's work also supports this view e.g., 6 per cent of the workers in general cattle industry who had no schooling at all, were all Aboriginal. The structure of stock camps in Central Australia also appears similar to that described by Thiele. In a mustering camp of eight at Yugul in 1973 Thiele indicated that only six were physically capable of mustering on horse back and all of these were under 20.

In Central Australia the situation has been similar. Mimili in its final destocking muster in December 1982 employed four youths under 17, one man aged 60 and one man in his 30s who had had his hip broken some years previously. There has been no survey of the structure and skills of Aboriginal stockcamps. But Thiele's work and the reports of the Insititute for Aboriginal Development on individual cattle stations (IAD, 1983) do indicate a tendency to employ inexperienced youths with a few experienced men whose physical ability is often limited by past injuries and age.

Traditional Life

Young (1981) in her work on Willowra suggests that cattle are a subsidiary activity and that traditional values would dominate at the expense of any European values integral to the operation of cattle activity. Lester (1983), an Aboriginal Leader of high degree, concurs: 'Aboriginal people just want the land so they can live, hunt and do their own thing'. And this is supported by the work of numerous anthropologists.

One would expect then that in communities whose economics are welfare based, traditional behavioural values would be dominant, freed from the constraints imposed by the need to obtain food, shelter and clothing through continued employment.

The proliferation of ceremonial life in the north-west reserve area of South Australia since the granting of land rights in 1981 has had an effect on the availability of labour, and on the behaviour of mustering camps. For example, in May 1981 a horse breaking school at Mimili was cancelled because of its proximity to ceremonies; in August and September 1983 the final destocking muster at Amata was delayed because roads were closed to Aboriginal stockmen during Red Ochre ceremonies, even though it was known that a failure to destock would mean the shooting out of hundreds of cattle whose value would be in the order of thousands of dollars (author's personal observation).

Thus there is some evidence to suggest that traditional values will affect labour efficiency and may limit economic activity where such activity interferes with or disrupts ceremonial life.

Authority Structure

The granting of title to Aboriginal people who operate cattle enterprises would appear to have reinforced traditional authority and has made it a requirement for the men who own the cattle business to also be men of high degree and have some claim to the land or responsibility for managing it (Lester 1983).

In the six years since land rights much of the confusion between enterprise authority and traditional authority referred to by Thiele has been resolved. The emergence of leaders like Stumpy Martin at Willowra and Donald Fraser at Kenmore Park as the spokesmen for the cattle enterprise when they are also responsible as the traditional managers is becoming increasingly common.

The development of outstations and the authoritative relationship of those groups to large scale cattle enterprises is still an issue. At Utopia the development of ten outstations on the pastoral lease spelt the demise of the cattle enterprise as a commercial operation (Mathewson 1983).

Resource Control

Thiele saw resource control as residing outside the community at Yugul principally in the hands of the Department of Aboriginal Affairs (DAA) and the pastoral consultant management company.

This control was far more intensive than would be possible today, since the then newly established Department of Aboriginal Affairs (DAA) had inherited the infrastructure of the Northern Territory Administration Welfare Branch, which was far more authoritarian than contemporary departments.

The later experience of the Central Australian Aboriginal operated cattle activities has been quite different from that of Yugul. This has been brought about by a coincidence of events, which achieve a greater measure of autonomy than Yugul was able to achieve. These events are briefly described below.

In 1974-75 Australia experienced its worst beef slump in a decade. Subsequently, several communities advocated and succeeded in having the consulting firm, AACM, removed e.g., Willowra 1976, Mimili 1978. During this period DAA, in accordance with the policy of self determination, was withdrawing its employees and handing over responsibility to community employed staff. Generally the number of community staff was less than that employed by the department. This created a vacuum in which the dominant men in each community could extend their authority and control, a process that Gerritsen (1982) suggests is general in the Katherine region. This process was more important on reserves than on cattle stations.

The effect of this autonomy was that the dominant men now had access to the resources of the cattle activities and the priorities in the resource allocation would be those priorities set by the dominant men.

These resources received a substantial boost with the upsurge in cattle prices in 1978 which was immediately followed by large scale destocking as a disease eradication measure. The combination of high prices and abnormal turnover generated windfall gains for each community-based cattle activity.

The use of such gains by community leaders varied, but very little of it was re-invested in the cattle activity and very little of it was used to maximise long term employment (IAD 1983).

Evidence of this is clearly indicated by the 6 million dollars estimated by the Aboriginal Development Commission as needed to resurrect six properties over the next six years. Further, because of the lack of skills referred to earlier, the dominant men, often on the advice of the wayfarers in their community, adopted the use of short term contract helicopter services to carry out the muster rather than using horse-based mustering e.g., out of the 23 cattle activities in Central Australia, only Mimili and Warburton have not used helicopters (Gerritsen, 1981, for the term 'wayfarer').

Conclusion

Aboriginal cattle activities are faced with the problems of major structural change which, because of their low capitalisation, poor labour skills and low levels of management will affect them adversely. Because of this, they are not in a position to achieve one of their stated goals, e.g., the maximisation of use of labour, and in fact if they did so it could hasten their demise. There are also some indications that Aboriginal people themselves do not wish to maximise employment levels in their cattle activities but would prefer to harvest the resource in order to derive other benefits that are perceived as more socially useful. If this is so then agencies working with Aboriginal operated cattle activities in Central Australia must develop alternative operating models because the multiple objective enterprise model developed and espoused in the welfare era of self determination is misleading in the current situation.

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AGRICULTURAL DEVELOPMENT IN THE NORTHERN TERRITORY:

ASPECTS OF TIME AND SPACE

WAYNE S. MOLLAH

On 30 May 1980 the Agricultural Development and Marketing Act 1980 received the assent of the Administrator of the Northern Territory after passage through the Legislative Assembly on 29 May 1980. It allowed for a two stage development program which was to be managed by a newly created Agricultural Development and Marketing Authority (ADMA). Several basic objectives were identified for Stage 1 (table 1) and a sunset clause set 30 June 1985 as the date for assessment of progress made towards their fulfilment. A favourable decision from a parliamentary review would then allow the second stage to proceed over ten years towards the establishment of 120 farms producing grain, oil seeds and peanuts in the Daly River Basin and forty five rice farms along the upper reaches of the Adelaide River (map 1). The overall cost was estimated at $62 million and special Federal funding has been sought.

TABLE 1

Stage 1 of Agricultural Development Program

(i) the establishment of initial rice develpment in the Adelaide River area using existing farms and infrastructure;

(ii) the establishment of up to 4 project farms in the Douglas/Daly area using experienced grain farmers with proven appropriate expertise under strictly commercial conditions;

(iii) the expedition of early soil and water investigations to locate and delineate accurately appropriate individual farm areas;

(iv) the initiation of further economic and marketing investigations directed to confirming the profitability of individual farm units;

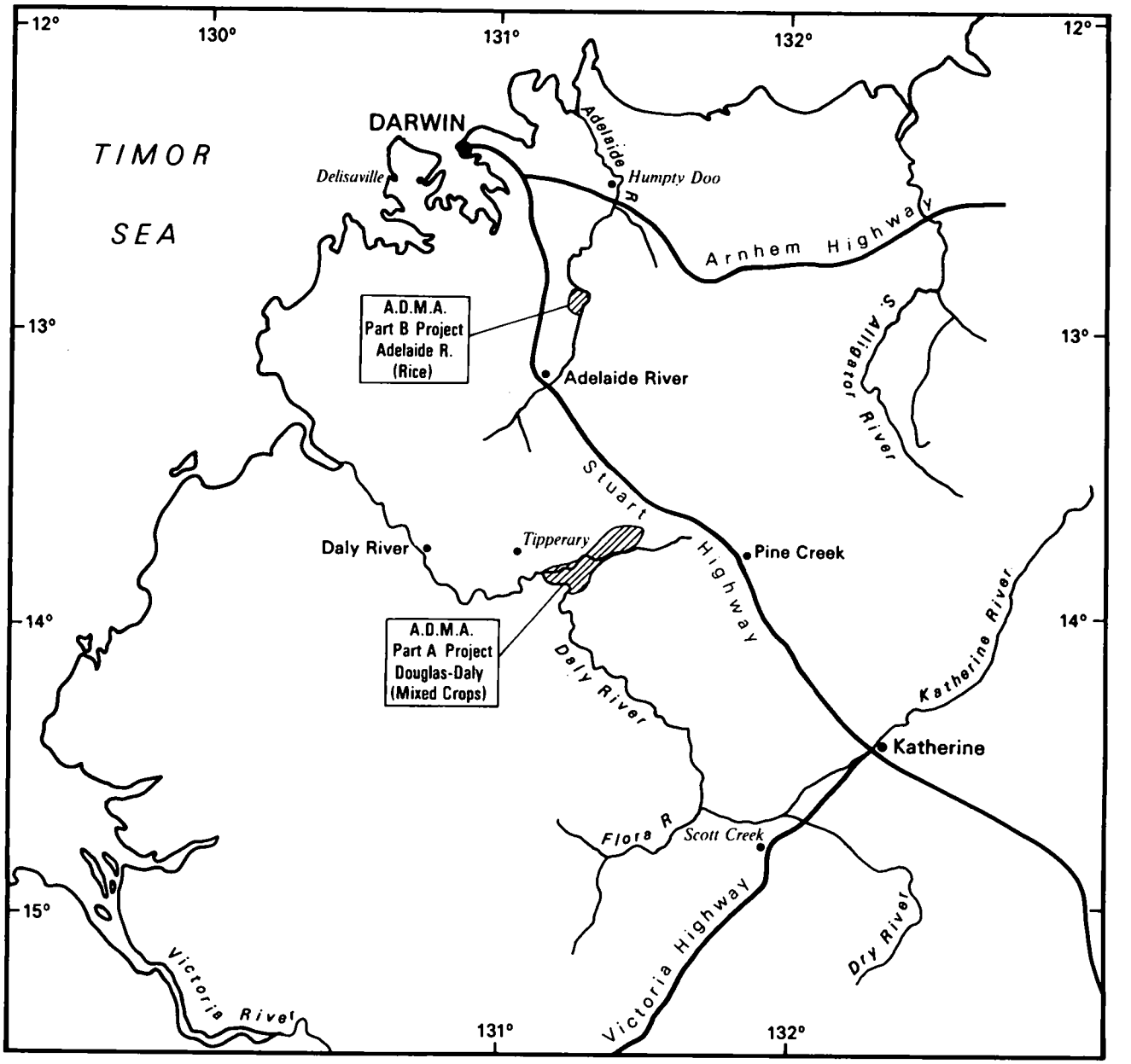
(v) the holding of appropriate discussions with existing landholders with a view to acquiring or securing areas of land necessary for the scheme;

(vi) ... ensuring more detailed infrastructure, planning and programming and

(vii) the establishment of an agricultural development and marketing authority.

Source: Northern Territory Legislative Assembly. Debate 20 February 1980, Agricultural and Horticultural Development in the Northern Territory.

MAP 1



Within a year the proposals for rice development were deferred for want of an adequate, assured water supply and the need for further 'risk analysis' (Acting Minister for Primary Production, 30 March 1981, press release). Regardless of the final outcome of this settlement program is represents one more episode in a centry long series of attempts to establish a significant cropping industry in tropical Northern Territory. Both large-scale and small-scale attempts have been made:

- sugar cane plantations at Delissaville and the Daly River, 1881-84;
- mixed cropping along the Daly for a few years after 1911;
- cotton and peanuts at Katherine, 1923-39;
- rice at Humpty Doo and the Marrakai, 1954-66;
- grain sorghum at Tipperary, 1967-73 and at Scott Creek (Willeroo)

Numerous assessments have been made of the prerequisites for success in the region (Campbell 1911, Payne and Fletcher 1937, Forster, Kelly and Williams 1961, Queensland Department of Primary Production 1979) and reasons for failure of various schemes have also been presented (Fisher et al. 1979, Mollah 1980, 1982a, 1982b).

Campbell (1962), Davidson (1965) and Musgrave and Lewis (1965) questioned whether agriculture should be attempted in the region and argued that resources invested elsewhere in Australia would obtain better returns for the nation. This largely normative argument was predicated upon the concept of economic rational man. However, in each of these three critiques other reasons for embarking upon agricultural development were given although they were regarded as of subordinate importance or it was said that they have been 'imperfectly revealed' (Campbell 1962, 1). In addition to the academic debate the chronicle of starts or false starts in agriculture show that rational economic behaviour has been by-passed. Therefore, a new question has been posed. Instead of asking whether agriculture should be or should not be part of land-use in the Territory a more fundamental question is why it has continued to attract support after so many disappointments.

The Theoretical Background

Given that much of the support-in-principle and most of the decisions on agriculture in the north have come from outside the region the theoretical basis for the examination of the basic research question seeks to establish a broad context for analysis. A start can be made by considering some fundmentals about agriculture. As it is now practised in Australia agriculture can be regarded as a complex of biological, commercial and social environments. The total of all interactions amongst the natural and man-made systems cannot be examined here but one example will serve to introduce the complexity involved. In the tropical north of the Territory the seasonal incidence of rainfall, temperature and humidity and the distribution of land of various qualities support a range of native vegetation. However, this lacks any species with commercial potential and exotic species have been introduced into the existing ecosystems to support the life or lifestyles of European man. Production of these crops involves certain levels of technology - mechanisation, fertilizers, pesticides - oriented to achieving yields that can be marketed locally, interstate or internationally. Commercial success then permits the growers to sustain socially acceptable standards of living.

As the natural and man-made systems change over time their analysis must recognize the particular time span involved. Dahlberg (1979) proposed the concept of contextual analysis which offers scope for examination of agriculture in the Northern Territory. Two major dimensions are involved. The context requires an holistic approach to the entire complexity of a real world situation. The analytic component concerns itself with general trends and comparisons contributing to the situation under review. In such an approach analysts must be aware of personal and cultural values that influence both change and the interpretation of change over time. Dahlberg put forward three time-frames for such analysis. The policy time-frame centres on decisions, actions and processes spread over a maximum of a decade. He argues that social scientists are most comfortable in this time-frame but that this narrow focus suffers from two limitations. Processes that may be changing significantly over longer periods tend to be regarded as constant and consequently, current conditions tend to be projected into the past or the future. The development time-frame extends to periods of the order of a century. Dahlberg criticizes attempts to consider changes in this framework that are more appropriate to the shorter policy time-frame instead of more basic elements such as population-resource trends and land tenure. Examination of development on this time scale encounters the further danger of attempting to expand particular contexts to universal generalizations and hence to overlook the full impact of cultural differences of the third time scale - the evolutionary time-frame. The biological environment of agriculture is mainly but by no means exclusively affected on this level. Climatic changes and long-term weathering and erosion processes affect, for example, the spectrum of plants and the value of land resources with development potential.

It must be emphasized that Dahlberg has put forward this concept to be tested by application to substantive issues such as the agricultural development scheme for the Territory. Hence the work outlined here has essentially two aims - to test the contextual analysis and to examine more closely why agriculture continues to be attempted in the north. Numerous reasons for the latter can be

advanced - economic, historical, defence, for example, but two - political ideology and social perceptions of land resources - are examined in a developmental time-frame. Discussion of these two aspects of development helps to generate an understanding of the long lead time that has preceded the current policy measures of the Northern Territory Government. A start can be made with the recent policy initiatives.

The Policy Time-Frame in the Territory

Self-government of the Northern Territory became effective from 1 July 1978 with a unicameral parliament of nineteen members. Most state-type powers were transferred from the Commonwealth to the new government from that day although legal matters had previously been transferred from 1 January 1978 and health and education followed on 1 January 1979 and 1 July 1979 respectively. The new autonomy fell short of full statehood in that provisions remained for the Commonwealth Government to intervene in Territory affairs in exceptional circumstances. Nevertheless, responsibility for the day-to-day business of government rested for the first time with a Territory Government. In this time-frame economic concerns traditionally predominate. At the time of self government the population of approximately 110,000 was concentraed into a few urban centres and the economy was fragile; in the final year of the Commonwealth control, 1977-78 direct administration costs totalled $379 million (Australian Bureau of Statistics 1980, 53). Aggregate production, income and expenditure data are not available but table 2 indicates the type of economy inherited by the new government and makes some comparisons with the contemporary situation nationally and in New South Wales and Victoria. The small Territory economy relied heavily on the mining and building sectors and showed a serious under representation of primary production and manufacturing. Broadacre cropping and horticulture from scattered pockets, mainly around Katherine, contributed a mere $1 million to the value of primary production which was dominated by livestock and livestock products (Australian Bureau of Statistics 1980, 29). A rapid, permanent population increase and economic development, involving both diversification and growth, were recognized as prime needs.

In order to establish guidelines for greater cropping output the Chief Minister sought assistance from the Queensland Government in December 1978. As a result a team of five from the Queensland Department of Primary Industries was appointed with the following terms of reference:

(i) to review existing arrangements and facilities for the marketing inside and outside the Northern Territory of Territory agriculrual and horticultural produce and to make recommendations to the Northern Territory Government for the future improvement of these arrangements and facilities;

(ii) to review existing production of agricultural and horticultural crops in the Northern Territory and examine, and make recommendations to the Northern Territory Government on the potential for future, increased production in terms of:-

- physical and biological restraints (land, climate, agronomy, water)
- availability and capacity of existing and potential producers and their financial, technical and entrepreneurial abiliies
- availability of markets (local, interstate, overseas)
- transport, handling and storage facilities
- supportive Government services for research, development, extension, quality control
- Government measures to stimulate development of the agricultural and horticultural industry. (Queensland Department of Primary Industries 1979, p.1)

Reports were available on agriculture and horticulture in September 1979 and led to the establishment of the new Authority and the formulation of the development program already outlined.

TABLE 2

Northern Territory economic activity compared with New South Wales, Victoria and Australia, 1977-78

	NT	NSW	Vic	Aus
Mineral production				
- value ($M)	130	1231	733	4903
- average per capita ($) 1	1230	250	205	355
Primary commodities 2				
- value ($M)	35	2217	1616	7491
- average per capita ($)	616	511	464	602
Fisheries				
- value ($M)	10	40	18	233
- average per capita ($)	126	8	5	17
Manufacturing				
- value added ($M)	55	7535	6740	19743
- average per capita ($)	531	1566	1806	1437
Building completed 3				
- value ($M)	165	1722	1696	6484
- average per capita ($)	883	381	456	463

1 average per capita calculated for three years 1976-77, 1977-78, 1978-79 on population levels of: NSW 5,059,900; Vic 3,865,500; NT 117,700

2 livestock, agriculture, forestry, hunting

3 excludes railways, roads, bridges, earthworks and other non building construction

Source: Northern Territory Government, 1980: Appendix 1, Tables 1-5.

Although the rice component of the initial program was deferred better progress was made with dryland farming. Three project farmers were placed on new holdings in the Douglas Daly area in August-September 1981 in time to prepare immediately for the 1981-82 season. Their blocks were partially cleared and fenced and provided with houses, sheds and power plants. For the first three or four years they were to work as contractors/share farmers and to contribute basic farming plant with ADMA to underwrite their costs. Upon successful completion of this period they could be allocated a Development Lease and when the covenants in these were fulfilled, in five to seven years, freehold title could be granted. One of the original appointees did not plant a crop and withdrew at the end of the first season. The other two project farmers planted some 450 ha, principally maize and sorghum, and produced moderate yields. In addition to the settlement components of its operations ADMA also managed a marketing pool for grain sorghum, maize, mung beans and peanuts and provided a receival depot at Katherine for the benefit of both longer-term growers and newcomers. For the 1982-83 season another four project farmers were appointed, one to replace the earlier withdrawal and three to move onto new, neighbouring blocks. In addition to the problems of setting in the newcomers were met by a

poor distribution of rainfall throughout the season. At Oolloo, for example, the seasonal total was 785 mm, some 380 mm below average, and 40 per cent of this did not fall until March, well after the crucial times of planting and crop establishment (table 3). While final yields per unit area harvested for all of the Top End were an improvement on the previous season many hectares were lost because of the low rainfall in the vital months of January and February.

TABLE 3

Rainfall distribution at Oolloo, 1982-83.

Average, mm, 21 seasons		1982-83 as % of average
Nov	84	80
Dec	69	42
Jan	143	55
Feb	181	62
March	308	117
Total	785	69

The Political Context of Development

The impetus given to agriculture in the north has come from direct or indirect government intervention. At any time spatial distribution of government resources in developed countries arises from political dispositions and interpretations of needs and resources (Johnston 1979, 8). Ideology and political self interest underlie political disposition and approaches to development in the Territory will now be discussed briefly in terms of political ideology.

During the period of Commonwealth administration of the Territory non-Labor governments held office for some forty-eight years and Labor governments were in power for the remaining nineteen years. Since 1978 the Country Liberal Party has formed the Northern Territory Government. Thus opportunities to formulate and implement policies for the Territory and for development in general have rested with parties across the Australian political spectrum. However, aggregate years in office do not equate with commitment to development. For example, upon election new governments need time to settle into office and they attend to the more urgent or more obvious needs of their main constituents (in the south). Upon election of a new Federal government little time or resources were available for Northern Territory matters that were usually placed in some lowly ranked institutional unit. A study of courses embarked upon will provide an understanding of what was accomplished but these largely reflect the allocation of priorities in the circumstances of the time - that is within a policy time-frame which in Dahlberg's scale approximates to three parliamentary terms. A more basic examination of ideology will place motives for agricultural development in the Territory in a development time-frame.

Both Labor and non-Labor parties have supported development but the reasons put forward for it have been couched in different terms. (Arguably the alternatives to development - stagnation or retrogression - would simply be unacceptable in terms of political self-interest).

For Labor, development in remote peripheral areas fell within their philosophy of decentralisation whose roots probably lay in the 1919 Federal Conference. At that time a proposal was made for the reconstitution of internal political boundaries whereby overall National interests would be the responsibility of a supreme parliament but thirty-one provinces would be created on the basis of common regional interests - capital cities, agriculture, dairying, pastoralism, and the like. Each of these would have a provincial parliament with functions more administrative than legislative except on matters directly delegated to them (Ellis 1933, 141-2). By 1933 the Federal platform allowed for:

- provision of a system of research work for betterment of rural production

- encouragement of secondary industries, the provision of cheap light and power in country districts where practicable (Australian Labor Party, 1933).

Although this did not spell out decentralisation per se the basic theme was present. The importance of decentralisation became apparent during World War II and its immediate aftermath when defence matters dominated national events. Attention turned towards rebuilding Australia with the formal creation of the Federal Department of Post War Reconstruction in 1942. A Premier's Conference in October 1944 resolved that states should define regional subdivisions for development and decentralisation. The Labor Governments of Queensland and Western Australia readily co-operated in the formation of a North Australia Development Committee with terms of reference to:

...examine and initiate proposals to be financed entirely by individual States and the Northern Territory or jointly with the Commonwealth Government, having as their objectives -

(a) an increase in population;

(b) the welfare and development of native inhabitants of the area;

(c) an increase in value of production;

(d) the best use of the lands and other resources involved.

From the work of this committee the Darwin-Katherine region was selected for the concentration of effort directed towards agricultural development in the Territory. Subsequent events have followed from this choice which had its foundations in the Labor policy in the mid to late 1940s.

Loveday (1977) has examined the attitude of Liberals to development. The notion of development has been prominent in political rhetoric since late in the nineteenth century and throughout the period since then Liberals have used it to justify intervention by government in the economy. It has survived because it has been a useful, but somewhat vague concept that can include almost any policy or program and therefore is very difficult to fault. Since early in the twentieth century development was seen to involve both an increase in population and promotion of primary industries because these were fundamental for progress towards a well balanced and mature economy. Liberal philosophy has at no time entertained a thorough theoretical elaboration of the development notion. Current experience in the Territory indicates that this imprecision has continued to political advantage. While development has been portrayed as desirable and essential what is actually involved has not always been clearly enunciated.

Cultural Perception - The National Context

From the outset production of crops and livestock provided the obvious means for establishing European settlement in the Northern Territory. This was by no means a novel approach and merely represented an extension of preceding patterns elsewhere in Australia and other regions of recent settlement with a common European origin of colonization (McCarty 1973, 149). Canada, the United States, South Africa and Australia were characterized by vast, open grasslands and low numbers of indigenous inhabitants. The importation of capital and labour enabled abundant natural resources to be converted into staple products for export to industrialized motherlands and allies. With the resources and technology of production and transport then available wool led the way for Australia. Gradually, the view of open spaces and prospects for prosperity in Australia, contrasted with the rural poverty, the despoliation of the countryside and the shame and horror of conditions in the industralized cities in Britain, created expectations of more from life in Australia (Powell 1972, 6). Resettlement of industrial workers on their holdings in the colonies would grant them the opportunity for independence, dignity and equality (Williams 1975, 72). The demand for land was heightened after gold mining brought about a rapid increase in population. A special place was held for small-scale agriculturalists leading to notions of a veritable Arcadia or some idyllic rusticity.

Inherent in this overall approach to rural settlement are two subsidiary themes:

- perception of the environment, not so much in appreciation of its pristine condition but in conjecture about its potential as farmland;

- confidence in the skill and technology of settlers to effect this transformation.

Few settlers or potential settlers had the opportunity for a preview of a region before selecting their holdings and depended upon the observations and experience of others. Cameron (1974) discussed distortion of information as it was disseminated in this manner. Assessors were those explorers or agents who had first hand knowledge of a particular region. Their views were subject to influences such as previous experience and the timing, route and purpose of their expedition; Mitchell left behind a drought-stricken New South Wales colony to traverse western Victoria during a particularly favourable season and returned to proclaim the untapped resources of 'Australia Felix' (Powell 1972, 3). When records, journals or accounts of expeditions were available to the public, assessors also acted as disseminators of information (assessor-disseminators) but at other times intermediaries (disseminators) passed on information directly from assessors or from other disseminators. Their selections or interpretations led to distortions and hence contributed to expectations of greater and easier success. Indirect dissemination of this type extended to literature in Britain and Australia (Lansbury 1970; Ward 1978, 263-83) and reflected societal views of the virtue of life and livelihoods on the land. The romantic theme of the countryside and its domestication also recurred throughout Australian art (Hughes 1970, 41-75). The processes of both exploration and spreading the news of discovery played important parts in founding agrarian settlements in colonial Australia.

Cultural Perception - the Territory Context

This broad context also accommodates the lead up to attempts to use the open, unproductive spaces of the Territory. Endorsements of the latent quality of the land appeared early in its history. The linguist and commissioner for Crown Lands at the garrison of Port Essington (1838-49) wrote of abundant native pastures and commented that 'The climate of the tropical region is much more favourable to the growth of vegetation generally than that of the south' (Earl 1865, 30). More persuasive perhaps were the comments of Stuart whose sixth expedition had lasted throughout 1862 and had finally taken him to the north

coast where on arrival he felt that he has passed '...through one of the finest countries man could wish to behold' (Stuart 1865, 408). On his return to Adelaide he repeated this sentiment for he believed the well watered north '...to be well adapted for the settlement of an European population, the climate being in every respect suitable and the surrounding country of excellent quality and of great extent' (482). Fifty years later that sentiment persisted: '...a great future awaits this portion of the Continent of Australia. Nature is prolific to an amazing degree...[in] the best and richest portion of the Continent' (Williams 1912, 4). Estimates of how much land awaited development reinforced such optimism. Lindsay and Holtze (1909, 37) estimated that plantations could be established in a belt 129 km (80 miles) wide around the coast to give a total area of 207000 sq km (80000 square miles) capable of supporting several thousand people. They added that a much larger area of arable land probably could be found suitable for tropical agriculture further inland. With seemingly limitless expanses of land ready for exploitation numerous temperate and tropical crops were proposed as possible mainstays for agriculture. Some would go towards a local self sufficiency in foodstuffs and others would be exported to industrial markets overseas.

Experience has been at odds with the pervading confidence in the capabilities of Europeans to grow all manner of crops. Earl (1846, 105) commented upon the absence of any practical experience with agriculture at Port Essington except for a native of the 'Indian Islands', an officer's servant. Nevertheless cotton was seen to have considerable advantages for it to become the first successful export; apart from a few garden tools and wool presses no special implements were needed, cultivation was apparently a simple matter, for the crop was merely picked after a few months with the rest of the year left for leisure and other pursuits and, perhaps best of all, the most suitable land occurred on the riverbanks where plantings could be made right where settlers landed (Earl 1865, 32). Almost as a footnote, the importation of native Egyptians proficient in its cultivation was mentioned. While export crops foundered some success was achieved by Chinese market gardeners and although their methods were 'quaint' they could well be followed by Europeans (Knight 1980, 17). The Chinese were the sole suppliers of fresh fruit and vegetables but their presence was tolerated rather than encouraged and attempts by them to start plantations for export crops were frustrated by refusals to grant them title to land or to sanction immigration of more of their countrymen as farm labourers (Rendell 1952, 183-91).

The presence of non-Europeans and their comparative success could be seen as a challenge to the confidence in the technical capabilities of Europeans. But the general trend in agriculture towards mechanization reasserted to some extent the superiority that had been challenged.

> ...there can be no doubt that operations in cereal culture with machinery such as Australians are conversant with can be entered upon in areas with rainfall of from 20 to 40 inches (508-1016 mm) with white labour (Commonwealth of Australia 1911, 4).

In recent times overseas expertise in large-scale mechanized operations was seen as eminently suitable for Territory conditions. Visions of '...16 row cultivation equipment with drivers like ships' captains putting down rows of crops two miles long...' were presented to promote the Tipperary grain sorghum development (NT News 24 July 1967). Expert consultants were able to support such promotional hyperbole:

> ..large-scale, mechanized production must be pushed and financed in cases where the physical and climatic resources are available and lend themselves to such extensive and highly intensified agricultural operations...the Tipperary Region appears to be one of these locations ...only waiting to be developed by American 'know-how' and capital. (Bloodworth et al 1967, i-iii)

From the earliest days proponents of agricultural development for the Northern Territory have enthused about its potential and have generated

widespread and deep-seated expectations of success. Confidence is essential for any venture across new horizons but at times apologists for the Territory have gone beyond confidence and have presented what amounts to an act of faith as fact. Experience has shown that success cannot be achieved simply or speedily and that optimism should be tempered with caution. When caution has been counselled the euphoria of promotion has overridden it as the following example shows. For the Territory Rice development a principal advantage of the Adelaide River plains at Humpty Doo was their apparent flatness and the flooding that occurred there each wet season (Mollah 1982a, 9). Fundamental to this choice of site was the implication that the amount and timing of such flooding coincided with the needs of a commercial rice crop or that such synchronization could be achieved without undue difficulty. In early 1953 the Director of Drainage and Irrigation in Malaya inspected the potential rice areas and forecast that for large-scale development rainfall would have to be supplemented by irrigation and that at least five years of surveys and basic research would be necessary to obtain sufficient hydrological data (Commonwealth of Australia 1955, 21). The local agricultural officer, at that time a veteran of three seasons in the Territory, condemned such a recommendation at length:

> Very considerable progress has been made...the suitability of the area for rice growing has been placed beyond doubt. Not only that, but the introduction of tropical varieties had indicated clearly the varietal requirements and has produced at least one variety on which it will be safe to base large-scale operations...while the engineering aspects associated with the development of the rice country must receive further attention, it is felt that these are not nearly as massive as originally described by many who had been denied the benefit of continuous observation on the spot. This applies more particularly to the development of the coastal plain areas. Considerable engineering will be necessary to bring in the more restricted Marrakai areas...An aspect has crept into discussions on development of the coastal plain area which should be treated with considerable reserve. This is the preoccupation with the principle of storing water as a prerequisite to successful rice cultivation. It should be clearly understood now that normally such reserves would only be of value during the first two or three weeks in January. At this period, <u>there is no water available</u>, as a rule, for storage. This is only one of the dangerous misconceptions that are being put forward in the absence of first hand knowledge of local conditions...The original conception for the development of these splendid plains must not be lost sight of in a welter of ingenious hypothesis (Agricultural Section 1954, 5-6).

From this response it is clear that social pressure for agricultural development had built up to such an extent that the dissenting opinion drew an emotional response. Over the years that followed, attempts at growing rice did suffer from a lack of adequate water control but in the heady days of promotion thoughts of anything other than quick, resounding success could not be tolerated.

Conclusion

Since 1980 the focus on agriculture in the Northern Territory has largely been on the Agricultural Development and Marketing Authority, an organization created to promote a new farm settlement scheme and to set up organized marketing arrangements for produce from new and established farms. The contextual analysis put forward by Dahlberg enhances a fuller understanding of the background to this policy and what it can achieve. In the brief outline of the analysis the policy has been set against a background of two matters in a development time-frame -- the political ideology of development and social perceptions of the biophysical environment. Both Labor and non-Labor philosophies were shown to favour development and to have crop production as an integral part of that development. Agricultural development has also been shown to be firmly impressed into the national cultural foundations and from this has flowed a readiness to perceive favourable environments where success merely awaited the taking. Throughout the development time-frame visions have been

generated of prosperous farming communities while the often protracted, often painful steps necessary for their establishment have been underplayed or overlooked.

Hence expectations for cropping are deep-seated but the practicalities of achieving success must be faced on a much shorter time-frame. This has posed serious problems for several earlier schemes in the north. The commitment to cropping must be repeated again and again by its proponents and its practitioners. This of course must rely upon availability of resources and, of equal importance, the will to continue. A grave danger is that immediate events are liable to be sanctified into long-term inevitabilities. For example, the poorly distributed rainfall in 1982-83 (table 3) gave rise to a range of costs and returns which must be recognized but it would be folly to advocate or condemn farming in the long term on that basis alone. A more substantial assessment is necessary. From the outset the pronouncement of a commitment to accumulate data on a commercial basis over a range of seasons before any economic assessment was made appeared to be one of the advantages of the whole ADMA scheme. This was seriously lacking in many of the earlier, speculative cropping ventures. For them the expectations of success, created in the development time-frame, were sufficient motivation to seek quick, spectacular results but, largely because of these expectations, they lacked either resources or commitment or both to go much past one season of setback.

It is not necessarily argued that large-scale cropping will succeed. However, many of the previous trials have been sufficiently thorough to provide commercial answers. Perhaps too much has been made of the artefacts of agricultural development -- giant machines and large workforces -- and too little committed to the elaboration of sound cropping systems. That latter aspect requires resources and commitment in a policy time-frame to allow more searching assessments of whether the visions of the development time-frame can be realistically achieved in prevailing circumstances or whether they are to be sustained as some cultural chimera.

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NUCLEATED RURAL SETTLEMENT AS A RESPONSE TO ISOLATION:

THE LARGE CATTLE STATION

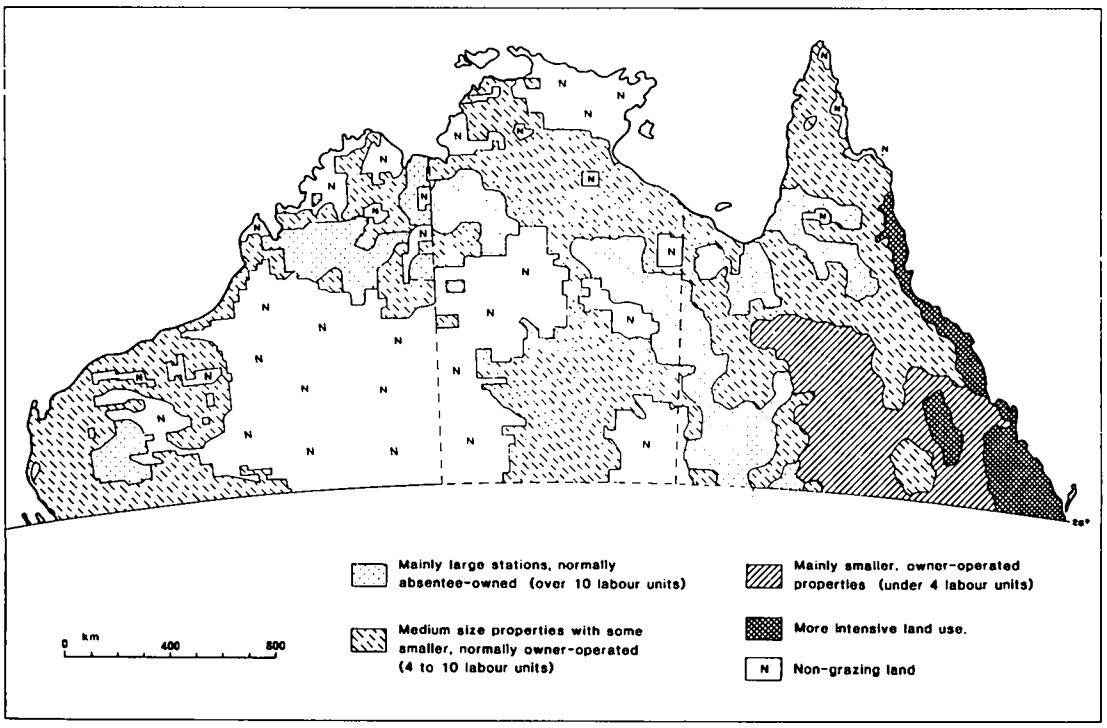
J.H. HOLMES

The assiduous pursuit of closer settlement policies by state governments for a period extending over a century has been decisive in shaping the Australian rural production system, which is now pre-eminently based on the owner-operated family property. Only in thinly settled areas used for extensive grazing, in the inland and North, have closer settlement programmes faltered. The outcome is a mix of rural production units of widely varying size and internal structure

Within the extensive grazing lands of northern Australia, family- sized properties were established only in the more accessible lands of inland Queensland, including both productive downlands and mulga and gidgee lands of variable quality, used mainly for wool production. In this zone, shown in Fig. 1, an attenuated system of dispersed rural settlement exists, with landholders and their families relying upon a thinly-stretched incomplete fabric of rural services, based on widely spaced small service towns.

In other districts, somewhat larger grazing holdings were established almost entirely owner-operated but large enough currently to require a labour force equivalant to between three and ten man-years annually to manage herds of 3 000 to 15 000 cattle. These family-run medium sized properties are located in the Top End (near Darwin) and the Alice Springs District, as well as in areas of intermediate accessibility in Queensland, also shown in Fig. 1.

Figure 1



More recently, the inferior and least accessible cattle grazing lands, formerly unoccupied, have been taken up as 'battler's blocks', often occupied and operated only on a seasonal basis and used for cattle gathering rather than husbandry.

This leaves lands of reasonable grazing capacity but low accessibility under the continuing control of large absentee-owned stations. Extremely large stations still dominate in the main northern cattle districts: Channel Country, southern Gulf Country, Barkly Tableland, Victoria River and southern Kimberley. Commonly these stations carry from 10 000 to 80 000 cattle with annual inputs of between 10 and 13 and up to 50 man-years.

The large cattle station is a seemingly anachronistic survivor from an earlier era and is a continuing challenge to the enshrined national goal of the family sized property. The large station depends upon a transient population with a truncated social and demographic structure, whose wages, living and working conditions are sub-standard and for whom the problems of isolation are magnified by a regimented, semi-feudal, constricted environment. In most basic attributes, the large station offers a sharp contrast to the smaller owner-operated properties, most notably in labour deployment, working and living conditions, demographic and settlement structure, service demands, dependence on public utilities, urban links and local multiplier effects. These very fundamental contrasts have major implications in relation to the whole spectrum of governmental policies relating to land tenure, land use, labour conditions, service provision and public investment. Yet these contrasts are rarely examined, and the rationale for the large cattle station is poorly understood.

Why have Large Stations Survived?

The various arguments adduced for the survival of the large station deserve close scrutiny. These arguments can be broadly described as: historical-political, environmental, and locational.

(1) The Historical-Political Thesis

It is commonly argued that the survival of particular large station(s) is due solely to the failure of governments to implement closer settlement programmes, with strong hints of behind-the-scenes influence (Kelly 1966, 1971). Such arguments are most cogent where large stations are located unconformably beside smallholdings, and the cadastral pattern can be described as an accident of history, whatever the more immediate cause. However, extensive regions of larger or smaller holdings cannot be explained solely in terms of political whim, particularly where these contrasting size patterns are found within the same state or territorial jurisdiction. In some instances the timing of settlement and the origins and status of the pioneers may have been important. I have heard it argued that the early wave of big graziers spreading westwards from Queensland across the grasslands to the Kimberleys created the framework for large stations, whereas the later thrust of South Australian smallholders into the Alice Springs district precluded a repetition of this pattern. The casual effects are too complex to be easily unravelled. However, whatever may have been the historical reasons, it has been difficult for governments to implement major changes. It can be argued that in the more remote areas the initial settlement structure has become firmly entrenched, not necessarily because of political influence, but because this settlement system has created the local conditions for its own survival. The locational thesis, discussed below, does incorporate this inertial effect, presenting arguments why a predominance of large stations can stifle attempts at closer settlement.

(11) The Environmental Thesis

This thesis suggests a correlation between size and environmental constraints. More specifically, it is argued that in areas of low carrying capacity, extreme variability in seasonal conditions and/or exceptional management problems, viability is associated with large size. Such a thesis is readily demolished. Owner-operators of small to medium sized holdings have

shown an extraordinary capacity to survive under equally adverse environmental circumstances, though admittedly aided by governmental support as in drought relief programmes and in the provision of costly services. It can be demonstrated that resident owners on adequately sized holdings can maintain high standards of husbandry, and investment, while making a reasonable living, even in areas of higher drought risk and lesser capacity than some of the major zones of large stations. For example, station managers on the Barkly Tableland will readily endorse favourable assessments of this district, particularly emphasizing its seasonal reliability and ease of livestock management. Only certain exceptional local environmental circumstances impose constraints on property subdivision into adequate living areas, the most striking being the extensive irregularly flooded inland deltas of the Channel Country where manageable smallholdings cannot readily be designed.

(111) The Locational Thesis

The main zones of large cattle stations share one common characteristic, namely remoteness. This is most readily observerd in the dissociation between large properties and towns. For example, in the Northern Territory, the two districts characterised by very large stations, Barkly and Victoria River are noteworthy for their lack of any urban development, while the districts with viable smaller properties are within reasonable travelling distance of Darwin, Katherine or Alice Springs. Similar relationships exist in Queensland and Western Australia.

Remoteness, or low accessibility, can be measured cumulatively in terms of the space-distance, time-distance or cost-distance to a specified set of services/destinations, or in terms of receiving services from these destinations. This concept of cumulative distance is expressed, for example in a recent unpublished internal document within the Bureau of Transport Economics, in which a single index of remoteness is calculated from the cumulated standardised distances to the nearest town in each of six categories of increasing population size. The resultant Australian map confirms the overall inaccessibility of the zones of large cattle stations. An additional component, not directly included in the B.T.E. index is that relating to local accessibility to rural network services such as all-weather roads, telephones, mail runs and school bus services, which are poorly developed in the zone of large stations.

Size Advantages in Remote Locations

The cost burdens imposed by remoteness are complex, variable according to individual needs and difficult to assess in toto. However, for cattle properties there are two basic components which have a strong influence on organisational structural and size. These are: the marketing of product (cattle); and the delivery of basic services.

Transport costs do markedly depress the ex-property value of cattle, both stores and fats, from remote stations. First-stage costs to meatworks or fattening areas may reduce values by 10 to 30 percent, compared with more accessible properties. Large size can have some value in minimising marketing disadvantages, by increasing bargaining power in negotiating contracts for transport and sales, but these advantages appear to be minor. Further advantage does accrue where size is linked to locational diversification, with a chain of properties used not only to adapt to spatial variations in seasonal conditions but also to sustain a regular movement of cattle from breeding to fattening and market. The most clearly defined movements are from the Barkly Tableland to the Channel Country and from the Gulf Country to the Cloncurry-Townsville corridor. However, only a few of the major pastoral groups have a regular movement system, and these are only part of a multitude of livestock movements of varying volume, persistence, location, organisational integration and property size, with some smaller remote landholders managing reasonably successfully in the same type of activity. Large size does not appear to be a conclusive advantage, either in arranging for livestock disposal or in bearing the brunt of lower income arising from remoteness.

However, the locational thesis has much greater cogency when applied to the problem of providing basic services. Large property size provides two related avenues towards minimisation of the burdens of external linkage to distant locations. The first avenue is self-sufficiency through internalisation in the supply of specialist services. The second avenue is concentration of demand to facilitate the provision of specialised services from distant, non-local origins (See Figure 2).

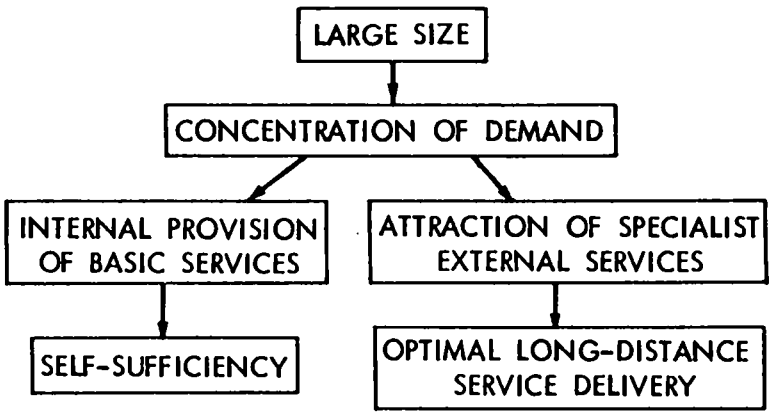


Figure 2. The relationship between size of holding, concentration of demand, self-sufficiency and optimal delivery of specialist services.

Internalisation of Services

Remote landholders are required to be very self-sufficient, since dependency on external services imposes a heavy contact burden. For the family-sized unit, self-sufficiency is founded on the resourcefulness of individual members, who, perforce, are jacks-(and jills-) of-all-trades in maintenance, repair, minor construction work, livestock management, emergency response, minor medical, primary education by correspondence, everyday needs such as energy and food, and also in leisure activities and all aspects of child-raising. A wide array of services, provided from external sources in more accessible locations, are internalised in less accessible locations.

This process of internalisation can be accomplished more effectively on larger holdings, where population numbers and enterprise size reach the threshold level for entry of specialist service personnel and facilities. In effect, the threshold concept in central place theory is transposed into a within-property rural context. Indeed, some larger stations are better equipped with urban-style services than are some small country towns. A full list of all the specialist personnel and services, possibly to be found on large cattle stations, must include the following, often with two or more tasks undertaken jointly by the one person:

1) Manager, who may also act as book-keeper, storeman, mechanic, pilot, associate headstockman, supervisor of yarded cattle or any other task according to need and preference;

2) Manager's wife, who occupies a pivotal (if poorly paid or unpaid) role as co-ordinator, facilitator, hostess and general custodian of the homestead complex and often as communications supervisor if there is no book-keeper;

3) Book-keeper/storeman responsible for office, internal and external radio communication services, well-stocked store serving station needs and cash sales to staff and wayfarers, spare-parts depot, hardware, petrol, diesel and avgas;

4) Motor mechanic servicing vehicle fleet with garage, workshop, wrecking yard for additional spares and power-station for continuous electricity generation;

5) Boreman, usually with offsider, with well-equipped truck for maintenance of bores, pumps and windmills;

6) Grader driver, normally camped out with grader, caravan, workroom trailer and fuel trailer;

7) Truck or road-train driver for internal, and some external movement of cattle, particularly weaners;

8) Pilot with light plane and all-weather airstrip;

9) Gardener tending ornamentals, lawns, fruit and vegetables;

10) Cowboy/butcher for milk, meat and general help;

11) Governess or teacher with schoolroom and School of Air radio;

12) Station cook with kitchen and staff dining room;

13) Domestic help for manager's wife and/or station cook;

14) A stock camp comprising headstockman, camp cook and from 5 to 10 stockmen and/or jackaroos, with the largest station having four stock camps;

15) Health services, including a clinic well-equipped according to Royal Flying Doctor Service specifications, managed by a partly-trained person (often the manager's wife) and used for scheduled medical and dental clinics with qualified visiting personnel;

16) Residential facilities, including: spacious main honestead with gardens and lawns; guest quarters; cottages for married staff (rarely for stockmen); separate bachelors' quarters for some older staff, particularly if permanently located at homestead; quarters for stockmen and jackaroos and other on-property itinerants which may also be used by some visitors; aboriginal huts or 'camp';

17) Recreation facilities, the most popular and common being a small, briefly crowded canteen when opened for the nightly ration of two to four cans of beer before dinner;

18) Caravan area for any contractors temporarily in residence doing fencing, dam construction or bore-drilling;

19) The homestead area may also be the location for some other 'internalised' services funded by other sources. In one case this includes a part-time government-funded nursing sister. More commonly it includes a school complex of large mobile buildings, used mainly by station Aboriginal children, with the few white children having correspondence lessons. The station complex may also include a police station (rarely nowadays), a stock inspector, a contract helicopter pilot and even a contract private veterinarian. These non-company workers are not necessarily fully engaged in servicing the needs of the station.

It can fairly be claimed that almost all the tasks carried out by specialist workers on large stations are also internalised on owner-operated properties, being done by the grazier and his family. However, the large station has more diverse human resources and a more substantial supply of equipment and spare parts to enable it to carry on with less reliance upon outside contacts for assistance, equipment or parts. This larger community is much more self-sufficient than the family-based rural unit and functions as a

self-contained small town, but with a much reduced level of external contact than any open town. Basic supplies are usually received only twice yearly. Social and recreational activities are poorly developed and the only external social contacts are at a few annual race meetings, gymkhanas and rodeos, for most personnel, but married couples may participate in a few social occasions at other stations. Many single workers still have an unquenchable urge to 'blow their cheques' at the first opportunity for an extended lost weekend in the nearest pub. On this issue all managers are in agreement that remoteness from a pub is an important asset in labour management.

Concentration of Demand for Specialised External Services

The second avenue towards minimising the costs of external linkage is to concentrate activity within one large nucleated rural settlement point which generates sufficient demand to attract specialist services at reasonable frequency from distant sources. Most stations have a weekly air service. Until 1973 this was a highly subsidised scheduled airline service. Nowadays it is either a private charter plane charging a standard landing fee or else it is a company plane, used mainly for delivery of mail, perishables, replacement parts, some personal orders and an occasional passenger, especially for medical treatment. The homestead also acts as the hub for scheduled radio sessions, internally and externally. It has been assumed that most stations would soon obtain telephone services via the domestic satellite, but this expectation has been dimmed by the October 1983 statement by the Minister for Communications that the user-pays principle would apply to satellite-relayed telephony. The delivery of health servies is markedly enhanced by rural settlement nucleation, both for medical emergencies and for scheduled clinics, and it is recognised that health care delivery in this zone is superior to that in the zone of dispersed rural settlement associated with family holdings, even though population density is lower and distances to town are much greater.

This differentiation in health care delivery highlights some important contrasts between nucleated rural settlement (large stations) and dispersed rural settlement (family-based properties). The large stations create only limited demands focussed at a few points such that service delivery costs are kept at a reasonable minimum level. Dispersed rural settlement, on the other hand, requires an array of conventional rural network services, such as roads, telephones, and mail services, together with reasonable access to a local service town. However, as described elsewhere (Holmes 1977, 1981) there is a systematic relationship between rural population density, the size and spacing of service towns and the quality and density of rural service networks. In the extensive grazing zone, rural families have been obliged to accept a rudimentary, incomplete array of services. Recent efforts to upgrade these services, most notably with all-weather roads, automatic telephones and itinerant teachers are achieved only at very high costs per unit of service delivered, and are increasingly dependent upon substantial direct subsidies or cross-subsidies. There is much less demand for upgrading services in the zone of large cattle stations. In any case, substantial subsidies towards services in this zone, particularly business-related services, are politically much less acceptable than in areas of family-based holdings.

Settlement Inversion

The large cattle stations provide a radically distinct solution to the problems of remoteness, pursuing the concept of internalisation and demand concentration to its ultimate conclusion. The outcome is a unique settlement system in which the rural settlements are dominant and the urban, where present, either miniscule entities or else appendages to the rural. This inversion of customary urban/rural relationships is to be seen in terms of the size, functional complexity, centrality and nodality of settlements.

The nucleated rural settlement of the large homestead complex is the residential and working focus for a population of 20 to over 100 people, with a significant proportion pursuing a semi-nomadic existence in the stock-camp. 'Urban' settlements in the same area are tiny by comparison, comprising only a roadhouse, pub or service station. Some separate urban functions are appendages

to the rural settlement. On the Barkly Tableland, these include policemen, stock inspectors, teachers, subsidised nurse, contract veterinarian, contract helicopter pilot and temporary construction contractors.

In functional complexity, many stations can match some well-established towns in the array of specialist personnel and facilities they contain. However, whereas urban establishments strive to attract customers, station facilities are intended for station purposes and are closed to consumers in general. Traditionally, stations have felt an obligation to provide a restricted set of basic services to travellers generally and particularly to drovers, rations to resident Aborigines, and a more extensive set of goods and services to their own staff.

Stations are becoming more reluctant to meet the needs of travellers, particularly along busy routes such as the Barkly Highway, and there are growing controversies about granting access to Aborigines for purchase of petrol, alcohol and basic rations. The question of service access to 'outsiders' will loom larger in the future with growth in demand, but with the provision of local open-access services continuing to be stifled by the self-sufficiency of the stations. Because of this continuing vacuum effect, it can be argued that stations will continue to have some obligation to provide certain basic services which would be locally available if the settlement system had not been inverted.

Stations also have the attribute of nodality; they are the focal point for roads which converge on the homestead complex, such that travellers must pass through the complex, as if passing through a small town. This is contrary to the usual rural pattern with homesteads located along private tracks subsidiary to country roads. The attribute of nodality is being lost where major through roads on new alignments have been constructed, and this new through-route alignment is also leading to the relocation of some independent services. At Avon Downs the new police station and stock inspectors housing are located on the Barkly Highway close to but separate from the homestead complex.

Basic Workforce Structure

Internalisation of support services must lead to a high proportion of the station workforce being engaged in service or support occupations. According to the industrial classification of the Australian Bureau of Statistics, all employees are engaged in primary production (grazing), but the occupational classification includes a wide range such as manager, clerk, truck driver, vehicle repairer, teacher, health worker and domestic service. In table 1, the basic workforce structure is given for the eight absentee-owned cattle stations occupying the core grazing area of the Barkly Tableland. These stations are: Lake Nash, Austral Downs, Avon Downs, Alexandria, Alroy Downs, Rockhampton Downs, Brunette Downs and Walhallow-Eva Downs-Creswell Downs. Anthony Lagoon remained destocked and with only two resident Aboriginal caretakers when this survey was undertaken in September, 1983.

Of an average of 30.6 employees on each station, 14.3, or 46.5 per cent were engaged in support services. This covered all work classifications other than headstockman, stockman and jackaroo. Individual stations varied between 61.1 and 36.2 per cent, with the two largest stations having the extreme values. While partly reflecting different management policies and company attitudes, these discrepancies also arise since some stations are more highly specialised in breeding, entailing a much heavier burden of mustering and yardwork for branding, cutting, dehorning, weaning and similar tasks.

TABLE 1
Barkly Tableland Stations: Composition of Workforce

Number of Persons

Attribute	All Stations	Largest (Any Station)	Smallest (Any Station)	Mean per Station
Livestock Workforce:				
Non-Aboriginal	87	26	7	10.9
Aboriginal	44	18	0	5.5
Total	131	44	7	16.4
Support Workforce:*				
Non-Aboriginal	86	16.5	7	10.8
Aboriginal	28	10	0	3.5
Total	114	26.5	7	14.3
Total Workforce:				
Non-Abor. Male	152	40	12	19.0
Non-Abor. Female	21	5.5	0	2.6
Non-Abor. Total	173	43	14	21.6
Aboriginal Male	64	24	0	8.0
Aboriginal Female	8	5	0	1.0
Aboriginal Total	72	27	0	9.0
Grand total	245	70	14	30.6
Percent of Workers in Support Categories	46.5	61	36	47.5

* In this column the given figure in each case is the largest to be found on any station. Accordingly, the quoted figures do not necessarily agree with the quoted totals.

In terms of weekly man-hours the labour inputs into stock work are much higher than indicated since stockmen commonly work at least 75 hours per week whereas support staff notch up between 50 and 60. These figures are crude estimates, but are affirmed from a succession of spot enquiries. However, in terms of man-weeks, stock inputs are lower since the stock camps normally operate for only 8 to 9 months each year. Further allowance needs to be made for the stock-work of the manager, especially on smaller stations, and particularly for aerial stock-work, usually by contract, which is used increasingly for mustering, particularly while demands have been increased with the brucellosis - T.B. eradication campaign. The transfer of mustering work to aircraft and the demands of the eradication campaign do combine to place an exceptionally heavy burden of tiring, dust-laden yard-work on the stockmen, whose working conditions appear to have deteriorated in recent years.

This workforce structure is reasonably consistent with that recorded in 1980 by Holt and Bertram in their survey of all 25 stations in the Barkly Region. Holt and Bertram found that 50.4 per cent of total labour inputs were provided by the livestock workforce, and that casual and contract labour were concentrated on livestock work. Casual and contract labour accounted for 33.3 per cent of all labour inputs and for well over half of all labour inputs in livestock work. Of the 'permanent' workforce, only 35.8 per cent were engaged in livestock work. The above data were calculated from tables on pages 114 and 115 of Holt and Bertram (1981), using a conversion rate of 46 man-weeks of casual labour to one man-year of permanent labour.

Obviously the measurements of labour inputs into various station tasks is a very complex undertaking, but one which is of critical interest in any comparison of the internal efficiency of stations vis-a-vis family-sized holdings. My current research into labour inputs on 100 family-based grazing properties in western Queensland, based upon detailed work diaries, will provide a basis for further comparative work. Of course, there are grounds for believing that stock-work is undertaken in a very inefficient manner on large stations, because of the youth, inexperience and lack of work motivation of an exceptionally transient workforce. Supporting opinions on this aspect are readily obtained, from a variety of sources, but the question merits systematic study (See Sri-Pathmanathan, 1983). My recent research on large stations, occupying only 25 days provides useful preliminary information, but is an inadequate basis for any closer interpretation.

Of the stockmen on the Barkly stations, just over one-third are of Aboriginal descent, and the proportion appears to be increasing, as managers recognise the advantage of recruiting and maintaining a more experienced component in stock-work, using Aborigines with a strong local affiliation. Aborigines are also important in the support workforce, with males commonly acting as boremen and offsiders and females as cooks and domestics.

Only 11.8 per cent of the workforce is female, being concentrated mainly as governesses, cooks and domestics, with three engaged in stock-work and one pilot.

Structure of Support Workforce

Of the various occupational categories described earlier, only on the largest stations would most be represented by a specialist worker within that category. Various task combinations have evolved in response to the particular needs of individual stations, the preferences of managers and the skills of workers. Managers usually resemble owner-operators in being jack-of-all-trades. Particularly on smaller stations with a support workforce of ten or less, managers become seriously overburdened by an obligation to fill certain support tasks, most notably book-keeper/storeman and possibly mechanic, while also finding it important to engage in some stock-work in the yards to ensure against inefficiency and to boost the morale of stockmen currently receiving an excessive dose of this gruelling, dusty work. Under pressure from many directions, these managers have an exhausting workload, normally 14 or 15 hours daily for seven days a week during the mustering season, which is even heavier than that of the stockmen. Managers also resemble owner-operators in being prepared to forego their summer holidays if the wet season is late to arrive. Companies seem all too willing to exploit the manager's concern for the proper management of the stations in their care.

TABLE 2

Barkly Tableland stations: Occupational Classification of Support Workforce

Occupation	Total Workers	Mean Workers per Station	Number of Stations with Worker in Category
Manager	8	1.Ø	8
Overseer	3	Ø.4	1
Bookkeper/storeman	3	Ø.4	3
Mechanic	9	1.1	7
Grader driver	1Ø	1.3	8
Boreman	23	2.9	8
Driver/general hand	11	1.4	5
Cowboy/gardener	8	1.Ø	7
Pilot/technician*	3	Ø.4	2
Governess/teacher	9	1.1	7
Domestic	7.5	Ø.9	3
Station cook	7.5	Ø.9	8
Camp cook	11	1.4	7

* In additon, one manager worked frequently as a pilot for spotting and mustering.

Table 2 shows that the support categories most frequently present on any station are: manager, grader driver, boreman, camp cook (all stations), mechanic, cowboy/gardener, governess/teacher and station cook (seven stations). Numerically, the largest category is boreman and boreman's offisder, followed by cooks. Boremen are an exceptionally large group on the Barkly Tableland because of the urgency of maintaining water supplies in hot treeless areas during the dry season, and the absence of natural permanent waters or artesian bores. Stations do not employ permanent fencing workers. Fencing repairs are done periodically by various workers, including stockmen, while fence construction and bore drilling are done by contractors. Grader drivers are essential for maintaining a smooth surface on heavy black cracking clays. Any road not graded each year becomes almost untrafficable, while graded firebreaks are also important.

Efficient, safe management of large properties requires a direct, reliable radio communication system. Transceivers are installed at the homestead, at each stock camp, in the manager's vehicle, with each grader driver and usually with each boreman's outfit. Extended work delays and much redundant travel have been eliminated by radio contact, and managers claim to have reduced their annual internal travel to a current level of between 50,ØØØ and 6Ø,ØØØ km because of radios. Nevertheless one manager of a large station still does not wish to install an internal radio system.

Population Structure and Mobility

There are very striking demographic differences between family properties and large absentee-owned stations. Family grazing properties have a stable population, with a balanced age-sex structure save for an under-representation of young adults and of older people who retire to coastal or near-coastal locations. Also secondary school children are away at boarding school for most of the year.

On large absentee-owned stations, the white population has an unbalanced demographic structure, with very high masculinity, a predominance of youg males, very few married couples and few children per couple. For all groups, residential and labour mobility is very high. In our September 1983 study, we were able to identify any white person who could be described as a permanent resident. The large stations have retained their traditional demographic characteristics, and indeed these may have become further accentuated, with excessively high mobility among young, inexperienced stockmen. The large cattle station seems lost in some time warp, retaining many of the peculiarities of a frontier society, through its failure to provide working and living conditions acceptable to a stable workforce in a modern society. Problems of remoteness are not solely responsible for the impermanence of the white population.

TABLE 3

Barkly Tableland Stations: Composition of Non-Aboriginal Resident Population

Attribute	Number of Persons			
	All Stations	Largest (Any Station)	Smallest (Any Station)	Mean per Station
Workers: Male	152	40	12	19.0
Workers: Female	21	5.5	0	2.6
Workers: Total	173	43	14	21.6
Dependent Wives	17	5	0	2.2
Children at Boarding School	2	1	0	0.3
Children: Correspondence Lessons	21	5	0	2.6
Children: Pre-School	7	3	0	0.9
Total Dependents	51	12.5	0	6.4
Dependents per Worker	0.27	0.64	0.0	0.27
Married Couples	25	5	0	3.1
Total Population	224	54	18	28.0

Note: Some resident workers have dependents permanently living outside the district. These dependents are excluded from the count.

In September 1983 the white population of the eight stations comprised 169 males and 55 females, giving a masculinity ratio of 313. An additional 21 males and 15 females resided in station complexes, but were not employed by the stations, including workers such as schoolteachers, stock-inspectors and their families. Table 3 shows the very low proportion of married couples and even lower proportion of children on stations, compared with national averages, with a dependency/worker ratio of only Ø.29. If non-resident dependents were included, this ratio would rise slightly. Large stations still attract some middle-aged men whose marital status and responsibilities for dependents remain obscure.

For all occupational groups, labour turnover and mobility are very high. The longest-serving manager has been 13 years, and the second longest 8 years on the same station. Most have been there for under 4 years. Holt and Bertram (1981, p 34) record that half of the managers in their survey had been on the station for less than one year. Managers are usually aged in their thirties, originate from Queensland, have served in the same company since jackarooing and have very strong ambitions to buy a small grazing property in east Queensland, but are restrained by lack of finance. All state that they intend leaving the Barkly Tableland in the near future. Headstockmen are even younger with almost all being in their early twenties and only two older than thirty (of the 13 surveyed). Over two-thirds were in their first or second season on the station. Stockmen and jackaroos are even younger, with only a handful aged more than twenty. Turnover is very rapid, with a high proportion staying less than two months, particularly on the larger stations. Smaller stations do succeed in keeping most stockmen for one full mustering season, but less than ten percent return to the same station for a second mustering season. These returners are mainly jackaroos seeking advancement through the company to positions of headstockman and manager.

Labour turnover is not quite so rapid in the support workforce. On average, surveyed married workers have spent almost two years on the same station, with the longest being eight years. Of the 35 single support workers surveyed, only 16 had been on the station for longer than one year. However, this group did contain two of the tableland's three 'old-timers', an Englishman employed as a cook with 23 years of continuous service and a book-keeper with 13 years.

The Aboriginal population, by contrast, has a more balanced demographic structure with extended family and clan units in residence. Mobility rates are much lower and more localised. It was not possible to obtain an accurate tally of Aboriginal population, however, because of the fluidity of certain family ties. In recent times, there has been a noticeable change on the issue of employing Aborigines, and a growing trend towards selective employment of more reliable Aborigines, particularly those without an excessive number of 'dependents'. Managers tend therefore to divide Aborigines into two groups. One group, more work-oriented, are to be encouraged to stay on and to affiliate with the station, while the remainder are regarded as 'camp' Aborigines. In the near future the latter group will probably be removed to small settlement reserves, soon to be designated, located several kilometres from the homestead area and supposedly independent of the station.

Issues in Labour Recruitment and Efficiency

This revival of interest in employing Aborigines is the outcome of the recruitment problems of large stations. High labour turnover is dysfunctional, particularly when stations must incre asingly rely upon inexperienced young stockmen under the charge of a headstockman whose experience is also very limited. Labour recruitment is difficult given the context of remoteness, harsh environment and limited budgets, with managers being under constant pressure from head office to reduce the wages bill. However, labour problems are partly self-inflicted, with many stations caught in a vicious circle of poor working and living conditions, excessively long working hours and glaring breaches of award requirements. This lack of care serves only to promote labour inefficiency, which in turn leads to pressure for longer working hours.

The enforcement of award rates and conditions would create a crisis for large stations, evoking a mix of responses of which the most common would be:

(a) Adoption of more labour-saving methods, including greater use of aerial mustering, trapping, closing off water supplies, and more subdivisional fencing;

(b) Greater attention to recruiting and retaining a smaller number of experienced workers;

(c) Reduced levels of management and reduced mustering frequencies, particularly on land with low grazing capacity and with physical problems in mustering;

(d) Destocking of the most difficult areas, particularly where allied with disease-control programmes;

(e) Pressure towards subdivision into smaller holdings in which labour costs are hidden within the labour unit comprising the owner-operator and his family and where efficiency can be markedly improved through accumulated local experience combined with strong personal incentives towards maximum efficiency in inputs of labour and equipment.

Social Issues

The large station remains an anomaly within Australian society with its encapsulated, controlled living and working environment, within which neither managers nor workers can escape from each other during the mustering season, save for a few brief periods of time-off. Released from the constricting conditions of station life, station hands work off their frustrations in 'lost weekends' which often may extend well beyond the day work is supposed to resume. Managers are generally reluctant to give time-off, other than for recognised annual events such as the Brunette Downs Race Meeting and the Mt Isa Rodeo, because of problems in resuming station activities after the break.

No matter how effective management practices may be, there is a structural weakness in the need for a closed, controlled society on cattle stations, with problems being reinforced by the sense of extreme isolation and by the pressures on companies to exploit wage-labour in order to remain competitive with owner-operators who are able to forgo award rates and overtime payments in their labour costs. These internal pressures within large stations are a field ripe for sociological inquiry.

For the transient workforce and for their families, the stress of isolation is reinforced by a lack of strong identification with the station or the local region. Almost invariably, resident owners and their families are noticeably better adjusted to their isolated circumstances, because of the compensatory identification with this as their home and their long-term involvement in the progress of their own enterprise.

Issues of Regional Development

Large cattle stations have served an important pioneering function in ensuring that remote areas have been used productively. Whether they should continue to do so is another issue. It has been easy for governments to accept the status quo in remote areas, since the stations continue to offer a low-cost solution to the maintenance of rural production in such areas. However, the survival of large cattle stations is not merely the result of benign neglect, but also because of their negative impact on regional growth which effectively stifles any potential momentum towards further evolution of the rural and urban settlement system.

This negative effect is not solely the result of extensive land use and sparsity of population, but also because the multiplier effects of the station

system are not directed towards local development. As shown earlier in this paper, multiplier effects are either internalised within the station's own structure or are non-local in their impact, creating demands for services from very distant cities. Regions such as the Barkly Tableland and Victoria River District will remain bereft of conventional rural and urban services, and of the workforce to sustain such services, while the station system continues in its present form.

The history of Australian land settlement has shown that significant local multiplier effects, leading to urban and regional growth, can be obtained only through closer settlement into owner-operated holdings. The generally accepted view is that this phase in our settlement history is now behind us and that there are no new rural settlement frontiers of this character. However, the regions currently occupied by large cattle stations do deserve scrutiny in this context. New alternative forms of closer settlement merit close examination, particularly forms which can sustain the high economic and social costs of remoteness, while promoting some regional growth which, in due course, may ameliorate the most severe problems of remoteness. Momentum may now be gathering towards some change in the station system, as the dysfunctional aspects become clearer. Large stations appear to be becoming less attractive for investment. In recent years several well-known stations have been purchased cheaply, with the purchase costs being largely recouped by selling the herd, leaving the station destocked, depopulated and neglected. The Hooker Corporation has had difficulties finding a buyer for Victoria River Downs, and is currently intending the sell the station in five separate lots. Such indicators suggest that the option of smaller stations, possibly capable of carrying from 3000 to 6000 cattle does merit closer examination.

In any transitional phase towards such a system of closer settlement, a transitional rural settlement system would be desirable, capable of coping with the problems of remoteness, while also using existing infrustructure. One obvious design is to retain the existing settlement cluster but have it shared out between possibly three to five individual landholders, and also including an 'open' urban area within which services could envolve in response to demand, including mechanics, contract boremen, grader operators, teachers and others, meeting the needs of the stations and any other local demand. This settlement system would continue to retain the advantages of enhanced external accesssibility through nucleation and of 'internalisation' through concentration, although it does also retain the disadvantages of low internal accessibility from the homestead to the grazing holdings, which would radiate outwards, in some irregular layout, from the homestead cluster. Although aircraft and road vehicles do enable rapid movement to all points on the property, it might still be necessary to maintain one or two satellite yards with a hut or camping arrangements, to undertake stock work at the more distant parts of the property.

This option does retain many of the advantages of the large cattle station while removing most of the obvious disadvantages. It also provides a context within which urban growth could occur, particularly at those clusters where additional sources of growth were present.

Issues of Public Investment

One of the decisive advantages of the large station has been its minimal demand for public funding in support of essential rural services. In this respect, large stations are in marked contrast with the dispersed settlement system of owner-operated properties in western New Sotuh Wales and central Queensland, where rural servicing is sustained only by very substantial direct subsidies and cross-subsidies from public enterprises such as Australia Post and Telecom Australia (Holmes, forthcoming). Any move towards subdivision of the large stations will certainly generate additional costs to the public sector, and this would be yet another component in the very substantial income transfers currently made by the Australian community towards the sparselands generally and the Northern Territory in particular. It might be argued that the cattle lands have been disadvantaged in that they are in the one remote area which is missing

out on this munificence. It can also be argued that at present the costs of sustaining the cattle industry are being borne inequitably by the workers engaged in that industry, from manager down to freshly arrived stockmen, all of whom have to accept wages, working and living conditions which most Australians would find intolerable, and that national goals of equity can best be served by transferring some of this burden from the few onto the community as a whole. Such income transfers would be politically and socially acceptable only if accompanied by changes in land tenure intended to develop a system of family-based properties. At the same time, any restructuring of the rural settlement system should try to avoid past mistakes, which often produced economically non-viable holdings, and also encouraged the evolution of a rural settlement pattern which is much too costly to service.

Concluding Comments

In this chapter, I have highlighted the negative impact of large cattle stations, in relation to internal efficiency, regional development and national goals. These negative consequences are summarised (in table 4).

TABLE 4

Negative Outcomes from Structural Defects in Large Absentee-Owned Cattle Stations: Their Internal, Regional and National Context

Structural Defect	Negative Outcome in Relation to: Internal Operational Efficiency	Regional Development	National Goals and Aspirations
Non-resident ownership	Usually neg.	Neg.	Neg.
Increasingly unattractive, monotonous working conditions	Neg.	-	Neg.
Increasingly uncompetitive wages and living conditions	Neg.	-	Neg.
Excessively long working hours	-	-	Neg.
Closed, controlled society	Neg.	-	Neg.
High labour turnover	Neg.	Neg.	-
Transient population	-	Neg.	Neg.
Truncated demographic structure	Indirectly neg.	Neg.	Neg.
Internalisation of services	-	Neg.	-
Specialist, long-distance service links	-	Neg.	-
Lack of open access to service facilities	-	Neg.	Neg.

It is acknowledged that this presentation is ill-balanced as it fails to consider fully the negative outcomes of alternative rural settlement systems in this locational/environmental context. It is acknowledged that the present system does not place unduly heavy pressure either on the natural environment or on the public purse, and that it does leave governments with options for the future. Certainly, the large stations have not generated the complex array of environmental, social and economic problems arising from misplaced efforts at creating small-holdings in the arid zones of New South Wales and Queensland (Young, 1983). Any close scrutiny of these holdings must cut as a salutary reminder against strong endorsement of schemes for closer settlement. It is suggested here that a more appropriate tenure system would be based upon properties of intermediate size, with mainly resident ownership and with property size still being positively correlated with remoteness.

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ABORIGINAL WAGE EMPLOYMENT

AN INDICATOR OF PARTICIPATION IN THE NORTHERN ECONOMY

ELSPETH A. YOUNG

Analysis of the economic development potential of Australia's north, as elswhere, generally focusses on one major component - the exploitation of the natural resources of the region or of resources which it draws upon from elsewhere. Economic development, however, is also dependent on the human population. In the rhetoric about increasing wealth, and the contribution of mining or tourism to the northern economy, the part played by the people of the north often receives scant comment.

People contribute to the economy mainly through their skills and knowledge, attributes which, for either individuals or population groups, are not static. New skills, needed with the introduction of new forms of enterprise, can be provided either through adding appropriate people to the existing population or by changing the characteristics of those already in residence. The first approach, in-migration to the north from overseas and other parts of Australia, has been, and remains, the more significant, partly because of the general feeling that the total population of the region must be increased. In the Northern Territory, for example, the need for a work-force with specialised technical knowledge has caused towns such as Nhulunbuy and Jabiru to draw their populations largely from outside the area; similarly, rapid expansion in public service personnel in Darwin led to an influx of qualified administrators in the self government era. The second approach, providing relevant opportunities for the resident population to contribute fully to new projects, has made much less impact. In particular, the Aboriginal population have not had the opportunity to play their part in northern development in ways appropriate to their own lifestyles and at the same time beneficial to the region as a whole.

The human contribution to economic development is expressed in a variety of ways; through the labour which people provide, through the resources which they make available and, less obviously, through the knowledge and experience which they bring to the effort. While all of these elements are significant, some are more easily assessed than others. This paper uses only one of these elements, provision of labour, to examine Aboriginal and non-Aboriginal differences in participation in the economy of the Northern Territory. The analysis is made in full recognition of the contrasting backgrounds which affect Aboriginal and non-Aboriginal perceptions and experience of wage labour. For Aborigines access to cash through wage earning and other means have now become vital components of survival, the maintenance of a satisfying way of life depends also on other elements - obtaining food and materials from natural resources; maintaining complex systems of social relationships which provide insurance against time of need. These non-monetary, and often strictly social elements often take precendence over cash, as a means of improving material aspects of life. Non-Aborigines generally place their priorities differently, and judge the accumulation of monetary wealth to be more important than elements of their social support system. This inevitably means that they perceive participation in wage employment, along with related concepts such as adherence to work ethics, as a central part of their experience. These differences in attitude are reinforced by differences also attributable to contrast in socio-economic status. Aboriginal experience of formal education and training is generally inferior to that of non-Aborigines, and thus their access to occupation groups at higher levels within the status hierarchy is much more limited.

The following analysis, which is based on 1981 Census data for the Northern Territory as a whole, and on data collected in a survey of a number of communities in the second half of 1983, raises some basic questions which must be approached if Aborigines are to participate more fully in this aspect of the economy. These include the following: what types of job-work situation do Aboriginal people want to be involved in, how can training and education be provided so that Aborigines find it appropriate to their needs, and - perhaps

most important of all - how can the vital human resource which exists within the Aboriginal population best contribute to the social and economic development of northern Australia?

Aboriginal Employment in the Northern Territory: An Overview

Census data, although valuable as the only source of general information on the socio-economic characteristics of the Northern Territory's population, have some disadvantages in an analysis of Aboriginal employment. In particular they use definitions which may not accord with the Aboriginal situation; for example, Aboriginal health workers are classified not as nurses (because they lack the generally accepted professional training) but as general service workers, which under-estimates Aboriginal involvement in the health field. Similarly, according to the census, an individual can belong to the labour force only if he is employed or registered as unemployed (actively seeking work). However, because of various factors affecting the delivery of social security services, not all Aborigines eligible for unemployment benefit are registered, and that sector of the labour force is underestimated. A further problem, applicable not only to the census but also to all 'one-off' surveys, is that the data apply to a single point in time. They provide no evidence of fluctuations in employment levels, a marked feature in the Territory where demand shifts with the seasons. These disadvantages should be remembered in considering figures presented in this section.

The 1981 Census shows that Aboriginal involvement in wage earning employment, indicated by labour force participation, was at a lower level than that of non-Aborigines (Table 1). For the Northern Territory as a whole only 44.8 per cent of Aborigines belonged to the labour force whereas the equivalent figure for non-Aborigines exceeded 75 per cent. In both groups the proportion of men in the labour force was much higher than that of women. When the labour force status of Aborigines is compared with that of non-Aborigines, it is obvious that Aboriginal rates of unemployment were much higher (about 11 per cent compared to 4 per cent for non-Aborigines). Neither labour force nor un-employment figures show any marked regional differences between the Darwin statistical area and the rest of the Northern Territory.

Table 1

Occupational Status by Race by Sex, 1981 Census
(% Total)

	Labour Force		Total Population	
	Employed	Unemployed	In Labour Force	Not in Labour Force
	%	%	%	%
Darwin Region				
Males: Abor.	87.1	12.9	59.6	40.4
Non-Abor.	96.0	4.0	86.9	13.1
Females: Abor.	88.7	11.3	39.1	60.9
Non-Abor.	94.5	5.5	61.1	38.9
Total: Abor.	87.8	12.2	48.1	51.9
Non-Abor.	95.5	4.5	74.8	25.2
Remainder NT				
Males: Abor.	88.2	11.8	56.4	43.6
Non-Abor.	97.5	2.5	87.9	12.1
Females: Abor.	89.2	10.8	32.8	67.2
Non-Abor.	96.4	3.6	59.6	40.4
Total: Abor.	88.6	11.4	44.2	55.8
Non-Abor.	97.1	2.9	75.4	24.6
Total NT				
Males: Abor.	88.2	11.8	56.8	43.2
Non-Abor.	96.6	3.4	87.3	12.7
Females: Abor.	89.1	10.9	33.8	66.2
Non-Abor.	95.2	4.8	60.6	39.4
Total: Abor.	88.5	11.5	44.8	55.2
Non-Abor.	96.1	3.9	75.1	24.9

Aboriginal wage earners were primarily employed as tradesmen/labourers or in service industries although the proportion working as farmers/fishermen and in professional positions was also relatively high. However, although over 25 per cent of non-Aboriginal workers were also classified as tradesmen/labourers, a high proportion of non-Aborigines were in clerical or administrative positions (Table 2). Aborigines and non-Aborigines were concentrated into different types of occupation within each main group. Thus, in the professional category, a far higher proportion of Aborigines than non-Aborigines were teachers (61 per cent compared to 33 per cent); correspondingly few Aborigines held other professional jobs. Similarly, in the tradesmen/labourer group, 42 per cent of Aboriginal workers were described simply as labourers while only 9 per cent of non-Aborigines fell into this bracket.

The significance of different occupations also varied by sex and between regions of the Territory. In the Northern Territory as a whole Aboriginal women were more strongly represented in professional and clerical jobs and in service occupations than were their male counterparts; Aborginal men were strongly concentrated in farming and fishing activities or were working as tradesmen/labourers. While similar contrasts occur between non-Aboriginal men and women the differences in some categories, notably professional jobs or service jobs, are less marked. Aboriginal men appear to have disproportionately low numbers of people in these job categories.

Regional differences between the Darwin area and the rest of the Northern Territory are important particularly in administrative and clerical jobs, and in farming and fishing. The Darwin area, with its emphasis on providing government services on a Territory-wide basis, has a relatively high number of employees (both Aboriginal and non-Aboriginal) in administrative and clerical positions. Few people are involved in agriculture or fishing. However, these activities,

particularly in the pastoral industry, are of major importance in the rest of the Northern Territory, where they employ over 20 per cent of all Aboriginal workers. Regional contrasts in skilled trades and labouring, or in the service industries, are much less marked, and these categories are important both in Darwin and other areas. Similarly professional occupations remain equally important in both regions, a reflection of the fact that the services of teachers, nurses and other professionally qualified people have to be provided both in rural and urban areas.

Table 2

Occupations by Race by Sex, 1981 Census (% those employed)

	0 Pro-fessional	1 Adminis-trative	2 Clerical	3 Sales Workers	4 Farming/ Fishing	5 Miners etc.	6 Transport/ Communi-cations	7/8 Tradesmen, incl. labourers	9 Service, sport, recreation	10 Armed Services	Total	Sample size (N)
Darwin Region												
Males: Abor.	8.1	2.9	7.5	0.8	6.4	0.4	9.7	54.2	9.3	0.6	100.0	483
Non-Abor.	15.8	9.2	11.5	5.1	2.1	0.5	6.0	36.9	7.4	5.5	100.0	16054
Females: Abor.	11.8	1.7	37.9	2.1	0.7	-	2.6	4.5	28.7	-	100.0	422
Non-Abor.	21.0	2.9	44.7	10.3	0.7	0.0	2.2	3.2	13.4	1.4	100.0	9630
Total: Abor.	9.8	2.3	21.7	1.4	3.8	0.2	6.4	31.0	18.3	0.3	100.0	905
Non-Abor.	17.8	6.8	24.0	7.1	1.6	0.3	4.6	24.2	9.6	4.0	100.0	25684
Remainder NT												
Males: Abor.	7.4	0.9	3.4	2.0	29.2	1.2	5.3	40.0	10.9	-	100.0	2516
Non-Abor.	14.3	6.7	5.9	3.7	7.4	5.0	6.4	41.2	7.5	2.1	100.0	11080
Females: Abor.	23.9	0.5	11.5	8.1	2.0	0.0	0.8	10.0	42.7	-	100.0	1249
Non-Abor.	26.9	2.6	30.1	11.9	2.3	0.4	2.3	3.0	20.4	0.1	100.0	5715
Total: Abor.	13.2	0.7	6.3	4.2	20.2	0.8	3.8	30.2	21.6	-	100.0	3765
Non-Abor.	18.6	5.3	14.2	6.5	5.7	3.5	5.0	28.3	11.9	1.4	100.0	16795
Total NT												
Males: Abor.	7.5	1.0	4.2	1.8	25.5	1.1	5.9	42.4	10.7	0.1	100.0	2997
Non-Abor.	15.2	8.2	9.2	4.5	4.3	2.4	6.2	38.6	7.4	4.1	100.0	27139
Females: Abor.	21.4	0.7	18.6	6.9	1.8	0.2	1.1	8.9	40.2	-	100.0	1676
Non-Abor.	23.2	2.8	39.3	10.9	1.3	0.2	2.3	3.1	16.0	0.9	100.0	15348
Total: Abor	12.7	0.9	9.4	3.6	17.0	0.8	4.2	30.4	21.3	0.0	100.0	4673
Non-Abor	18.1	6.2	20.1	6.8	3.2	1.6	4.7	25.8	10.5	2.9	100.0	42487

Straightforward classification on an occupational basis does not indicate the level of qualifications which workers have achieved. Aboriginal and non-Aboriginal workers in different occupational groups contrast widely in their level of qualifications. Only 5.6 per cent of Aboriginal employees in the Northern Territory had recognised qualifications compared to 39.6 per cent of non-Aborigines (Table 3). Differences were marked for both men and women, although, for Aborigines, the proportion of qualified women was slightly higher than that of men. In contrast, for non-Aboriginal workers, the proportion of qualified men exceeded that of women. The difference in qualifications of Aborigines and non-Aborigines was more marked in some occupation groups than in others. Over 80 per cent of non-Aboriginal professional workers were qualified, compared to only 14 per cent of Aborigines and, for those classified as tradesmen/labourers, the corresponding non-Aboriginal and Aboriginal figures wee 45.6 per cent and 5.4 per cent. Very few Aboriginal farm workers had any recognised qualifications. The contrast was slightly less significant for Aboriginal and non-Aboriginal workers in administrative and clerical positions, but was still obvious. Altogether these data reveal not only that Aborigines were less heavily involved in the wage force but also that most Aboriginal workers had lower status jobs and lacked any recognised form of qualification.

As anticipated, these contrasts in the Aboriginal and non-Aboriginal work force lead to marked differences in monetary incomes, both for individuals and groups. Aboriginal per capita incomes in 1981 were less than half those of non-Aborigines (Table 4). For people aged fifteen years and over (i.e. those from which the labour force is drawn) the annual per capita non-Aboriginal income was $10706 while for Aborigines it was $3862. The difference was less marked in the Darwin region, where the corresponding figures were $10613 and $5357. Such figures fail to take into account differences in the demographic structure of the two groups, with the percentage of children below the age of fifteen being much higher for Aborigines than non-Aborigines. When per capita incomes are calculated for the whole population the non-Aboriginal figure of $7533 per year becomes over three times that of Aborgines ($2078), and in largely rural areas (Northern Territory excluding Darwin) the Aboriginal income was only a quarter of that of non-Aborigines.

Table 3

Occupation by Qualification by Race by Sex - Total Northern Territory (1981 Census)

(% of employed with qualifications)

Occupation Group	0 Professional	1 Administrative	2 Clerical	3 Sales Workers	4 Farming/ Fishing	5 Miners etc.	6 Transport Communications	7/8 Tradesmen/ Labourers	9 Service, Sport Recreation	10 Armed Services	Total
	%	%	%	%	%	%	%	%	%	%	%
Males											
Abor.	12.9	25.8	12.0	5.7	0.6	6.3	1.7	5.9	3.7	-	5.1
Non-Abor.	83.1	46.5	21.5	25.3	17.8	18.2	27.7	47.0	27.8	50.6	44.2
Females											
Abor.	14.2	33.3	6.7	0.9	-	-	-	1.3	4.9	-	6.7
Non-Abor.	81.9	24.8	16.7	11.3	19.5	16.7	13.9	13.3	17.6	25.4	31.5
Total											
Abor.	13.7	27.9	8.2	2.4	0.6	5.6	1.5	5.4	4.5	-	5.6
Non-Abor.	82.6	43.0	18.1	17.3	18.1	18.1	25.3	45.6	22.2	36.0	39.6

This brief overview has isolated some important features of Aboriginal involvement in wage earning and of the structure of the Aboriginal work-force in the Northern Territory in 1981. They may be summarised as follows:

1. Aboriginal levels of participation in the labour force were low.
2. The Aboriginal sector of the labour force had lower employment levels than the non-Aboriginal sector.
3. Aboriginal workers were generally concentrated into occupational groups with lower status and, within the major occupational categories, were mostly found in only a few types of occupation.
4. Most Aboriginal workers lacked any recognised qualifications, although the percentage of qualified women exceeded that of men.
5. Aboriginal per capita incomes were far below those of non-Aborigines.

These census data confirm the main points made in the introduction - unequal Aboriginal representation in the work-force, due to low levels of formal education and skill. They imply, but cannot prove, the operation of other factors such as Aboriginal social and cultural constraints on wage employment participation, or the existence of barriers which hinder Aboriginal advancement. These factors, along with consideration of Aboriginal attitudes towards wage employment, can only be examined through more detailed information.

Table 4

Income by Race (1981 Census)

($ per capita per year)

	Pop. Aged 15+ ($)	Total Pop. ($)
Darwin Reg.		
Aborigines	5357	2847
Non-Aborigines	10613	7369
Remainder NT		
Aborigines	3596	1938
Non-Aborigines	10849	7800
Total NT		
Aborigines	3862	2078
Non-Aborigines	10706	7533

ABORIGINAL EMPLOYMENT AND SKILLS; THE RURAL SCENE

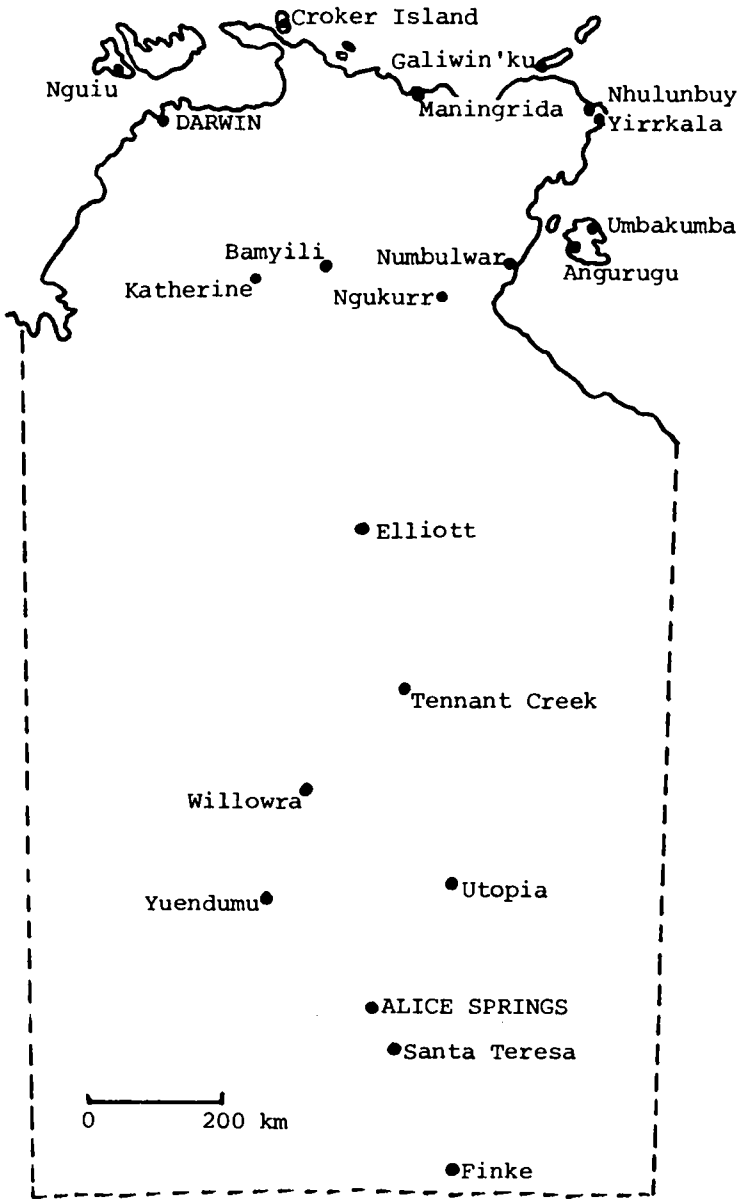
Detailed information on Aboriginal employment was collected from a number of rural Northern Territory communities in the latter part of 1983. It complements an evaluation of TAFE adult education services, a study commissioned by the Northern Territory Department of Education, for which data were collected during the same visits. Ultimately the employment data presented here can be considered along with detailed information on training and education, but for the present purposes only employment data are examined.

Community Characteristics and Employment Opportunities

The communities included in the 1983 study have several common features. They are all situated in rural areas, at some distance from major towns, and the majority of their Aboriginal residents, who usually account for at least 80 per cent of the population, have traditional linguistic and cultural ties to the immediate or nearby area. Even if people had the opportunity to commute elsewhere for jobs, an opportunity which is severely restricted for both physical and social reasons, they would be unlikely to do so. Most people work in service related occupations within the community. Communities differ in more specific ways, several of which affect their employment opportunities. These include their administrative structures, their history of contact with non-Aborigines, their economic enterprise development, and the feelings of their Aboriginal populations about assuming control over their own affairs.

First, while most of the communities are located on Aboriginal land and are administered by Aboriginal councils, some, like Finke and Elliott (Figure 1.), are 'open' towns. In these places non-Aborigines can both move in and out at will, without seeking permission from the Aboriginal council, and can also establish their own private businesses, with no obligation to employ Aborigines on the staff. In Elliott, for example, the shops, garages and hotel are all under non-Aboriginal ownership and employ few, if any, Aborigines. In other communities these enterprises are almost all owned by Aboriginal incorporated bodies, and must offer job opportunities to Aborigines.

Figure 1



Secondly, the contact history of a community can affect the contemporary employment structure because of the persistence of past policies. Yirrkala, Angurugu, Numbulwar and Santa Teresa were all mission settlements, and the influence of these mission organisations remains strong. It varies according to mission policy. Yirrkala, formerly a mission of the Uniting Church, has continued the mission interest in practical community development by placing strong emphasis on the training of Aborigines to take over positions of responsibility in both business and administration. In both Angurugu and Numbulwar, previously Anglican missions of the Church Missionary Society, the interest in such training has been practically recognised only in recent years because mission policy placed no emphasis upon it; consequently, these communities , compared to Yirrkala, are facing greater difficulties in transferring responsibility for administration to Aboriginal control. Santa Teresa, still strongly controlled by the Catholic Mission, provides yet another contrast; it is still dominated by non-Aboriginal management and administration, except in the newly established Progress Association office where some Aboriginal impact on administration is now occurring. In ex-government communities, such as Maningrida, Yuendumu, Bamyili and Umbakumba, government input remains important although the administration is now under Aboriginal community councils.

Many employees, both non-Aboriginal and Aboriginal, are directly employed by the government (for example, teachers and health workers) or hold jobs financed through government funds (council workers) and the community also receives funding for special works projects (for example, housing grants from the Aboriginal Development Commission). Bamyili and Galiwin'ku, in addition, both participate in the Community Development Employment Project, a scheme whereby the total unemployment benefit entitlement of the community is assessed, and the council then receives bulk funds to finance a work force from this money. This effectively increases the size of the total labour force. Government input in the former mission communities tends to be at a lower level.

A third group of communities, for example Willowra and Utopia, are Aboriginal cattle stations, now holding their former pastoral leases under freehold title. Neither community has ever been under strong government or mission influence and both lack the type of physical or social infrastructure (for example, council offices, workshops, resource centres, housing associations) which require a large service work-force. The limited development of that part of their operations has stunted the growth in employment; Utopia, for example, received its first funding for the construction of basic shelter as recently as 1982/83.

As these comments suggest, the employment opportunities in Aboriginal communities depend heavily on access to government funds. This access is not equal. On the whole large ex-government communities receive more generous funding than do ex-mission communities, and, in the latter case, funds are channelled in through mission auspices. Aborigines may not be fully aware of how much is available or may not be consulted on how the money should be spent. Aboriginal cattle stations also tend to be overlooked, principally in terms of funding for 'town' services. They are still regarded as pastoral communities even though, as in Willowra, they may have a centralised settlement of over 300 people in need of essential services, garbage collection and other such provisions. Without external funding they are unlikely to employ people to do these jobs, particularly when their proceeds from cattle sales are unpredictable. Both Willowra and Utopia have undergone heavy destocking programmes.

A third important difference between communities is their development of commerical enterprises, outside the direct influence of government funding. Although most of these case study communities lack any large scale enterprises, some do have cattle companies or mining companies and most run stores. These all provide additional employment opportunities.

A further contrast has arisen with changes in the physical structure of settlements. Not all these communities are now strongly centralised. Maningrida, Utopia, Yuendumu and Yirrakala, for example, all have a large number of outstations serviced through the central settlement. This changes the demand

for many services and makes an impact on labour force requirements. Educational and health services, for example, may have to be provided by employing part-time workers resident in each out-station, in addition to full-time workers at the main school or clinic. Access to these facilities on outstations, like other facilities involving employment, depends on successful application for government funds and, as discussed earlier, inequalities can and do arise.

Finally, Aboriginal communities place varied emphasis on the need for Aborigines to take over higher level jobs from non-Aborigines and exert different amounts of power over who should, or should not, be employed. This affects both the types of jobs which Aborigines hold, and also the size of the work force. In the past, in both government and mission communities, most administrative jobs were automatically filled by non-Aborigines, appointed with minimal, if any, consultation with Aborigines. Today this still happens, although to a lesser extent. Community councils now have the opportunity to interview prospective non-Aboriginal bookkeepers, store managers and others who will be working for them, and may also successfully request that these positions be transferred to Aboriginal staff. However, if problems occur when positions of this type have been transferred, the council may then be forced to revert to the earlier situation, and reinstate non-Aboriginal management. The creation of a sympathetic environment within which to implement important changes such as these, goes far in ensuring the successful assumption of Aboriginal control. Finke, Ngukurr, Willowra and Utopia have all made determined efforts along these lines, and have succeeded in offering job opportunities of a type which are still not available to Aborigines in many other communities.

Work-Force Organisation

Wage employees in rural Aboriginal communities can be classified into a fairly small number of employer categories, here grouped to form six broad sections: school, clinic, council (including housing), store, other enterprises, and others. The types of occupation which come into each section are quite varied. People employed at the school include teachers (both non-Aboriginal and Aboriginal), teaching assistants, literacy workers , adult educators, librarians, janitors, secretaries and cleaners. The clinic normally employs nurses and health workers, some cleaning staff and may have a resident doctor. The council employs a very wide range of people, both skilled and unskilled and this classification also includes people who work for housing associations and outstation resource centres, organisations which in some communities form part of council responsibilities and in others are separate. Council occupations therefore cover bookkeepers and clerical staff, all types of skilled tradesmen (mechanics, plumbers, painters, bricklayers), plant operators, drivers, labourers and many others. The shop employs managers, check-out operators, storemen and cleaners. Other enterprises, here mainly pastoral and mining companies, employ stockmen, mechanics, labourers, and managers. The last section, under the group 'other' covers employers such as the missions, the police, the airline companies and the Northern Territory Department of Community Development, and employs a wide range of people including pilots, ministers/priests, welfare workers and policemen.

The relative importance of each of these sections varies between communities, largely because of the operation of factors mentioned above (administration, contact history etc.). Some sections (school, clinic, council) are almost always prominent, but others (enterprises, other organisations) may be insignificant. These variations are important characteristics of the overall employment structure.

Community Employment Structures, 1983

Comparison of the size of Aboriginal and non-Aboriginal work-forces with the total populations of each group in each community show that non-Aboriginal employment rates were far above those of Aborigines (between 50 and 74 per cent of non-Aborigines were employed, compared to only 3 to 20 per cent of Aborigines (Table 5)). This contrast is to be expected because most non-Aboriginal families have moved to these communities specifically because one or more of

their members have been appointed to a particular job. It is rare to find itinerant or unemployed non-Aborigines (apart from spouses of workers) living in any Aboriginal community. Aborigines, on the other hand, have strong social and cultural reasons for remaining in residence, even if there is little likelihood of them ever obtaining a wage job.

Community employment levels for Aborigines varied very widely (Table 5), mainly because of the operation of factors discussed earlier. Utopia, where only 3 per cent of Aborigines were in wage jobs had, until recently, no housing projects and no funding for the provision of essential services under the community council; the school, accessible to only two out of Utopia's thirteen outstation groups, operated at a level well below what is needed for a population of over 700; and there was no community store. In contrast, Galiwin'ku and Bamyili not only had established central councils, with government funding for a service work-force, but also operated the Community Development Employment Project, which provided at least 120 additional jobs in Galiwin'ku alone. Other communities, most of which have some funding for a council work-force, fell between these two extremes.

These figures do not reveal other important characteristics of the Aboriginal employment level in rural communities - its seasonal fluctuations and vulnerability to changes in outside funding arrangements. Seasonal fluctuations are particularly important in communities concerned with the pastoral industry. In an earlier study (Young 1981:148) I showed that employment levels in Willowra trebled between January 1979, when the stockcamp was not operating, and June 1979 when mustering was in full swing. At the time of the 1983 survey, August, Willowra men were working in the stockcamp and the number of Willowra people employed was almost the same as that for June 1979.

Table 5

Community Employment Levels*, 1983

	Aboriginal			Non-Aboriginal		
	Employed	Tot. Pop.	Employed % Tot. Pop.	Employed	Tot. Pop.	Employed % Tot. Pop.
Yuendumu	75	800	9.4	35	60	58.3
Finke	26	120	21.7	7	12	58.3
Santa Teresa	72	450	16.0	37	50	74.0
Elliott	36	500	7.2	17	na	na
Willowra	24	350	6.9	8	13	61.5
Utopia	22	770	2.9	10	15	66.7
Maningrida	91	613	14.9	36	80	45.0
Bamyili	81	400	20.3	27	40	67.5
Umbakumba	39	320	12.2	19	na	na
Angurugu	62	700	8.9	39	na	na
Galiwin'ku	225	1172	19.2	27	na	na
Yirrkala	88	800	11.0	45	na	na
Croker Is.	26	140	18.6	9	30	30.0
Ngukurr	65	640	10.2	13	30	43.3
Numbulwar	52	450	11.6	21	35	60.0

* Because of deficiencies in population data these are calculated as simple percentages of the total population. The figures are comparable for the communities shown here but cannot be compared to figures calculated by more conventional methods, i.e. employed as a percentage of the labour force.

Changes in employment caused by variations in funding can occur at any time, and can make a marked and sudden impact. In late 1979 the Numbulwar Numburindi Council was forced to make a drastic reduction in its work-force because it had grossly exceeded its budget for the earlier part of the year (Young, 1981:219). Comparison of the 1983 figures with those obtained for Yuendumu and Numbulwar in 1978/79 also reveals a marked change in employment levels. In both communities the 1983 figure, in gross terms, was only about 52 per cent of the figure for 1979 (Young, 1981:104, 218). This decline, which, it can be assumed, has also affected other communities, suggests that Aborigines must be increasingly dependent on social security payments for their cash income, a fact that in turn must lead to a decline in real income because such payments are less frequently adjusted to cater for inflation. This has serious long term implications for the people of these rural communities who have not only increased some of their demands for material wealth (for example for vehicles and fuel) but who are also faced with a continuing high rate of population growth. The reasons for the decline in jobs are not clear. As the figures indicate, the decline has been more marked in council employment than in other categories of job. Willowra, with hardly any funding for council jobs, employs the same size work-force as in 1979 but in Numbulwar and Yuendumu the number working for the councils in 1983 are only 48 per cent and 40 per cent respectively, of the 1978/79 figures. It has, however, also occurred in other sections. Yuendumu school, in late 1978, employed 20 Aborigines and in 1983 only had 14 Aboriginal employees. The changes can partly be attributed to reduction in funding associated with the need to meet economic stringencies, a reduction which has certainly meant the loss of jobs. They may also indicate some reordering of the priorities which Aborigines place on the types of activity necessary for the well-being of their communities. Councils may no longer see the need to employ a casual work-force for 'town beautification and garden development'.

A further factor is the changing structure of communities. For example, the dispersal of the Yuendumu population to outstations, which has effectively halved the resident population of the core settlement, has reduced the need for many service jobs in the centre. Firewood collection and camp cleaning can now be carried out by fewer people. No corresponding jobs have been provided on the outstations and in fact the reduction in Aboriginal teachers at Yuendumu school has been partly attributed to the movement of children to outstations. At present the Department of Health is the only employer which has made positive recognition of this fundamental change in structure and has funded outstation health worker positions. Yuendumu's experience must have parallels elsewhere. Altogether the future for young rural-dwelling Aborigines who want to find work within their own community must be bleak.

Councils, schools and clinics were the main employers of Aboriginal labour in most communities (Table 6). The council was particularly prominent in Galiwin'ku and Bamyili, because of the CDEP projects; in Elliott, where other opportunities for employment were lacking because all enterprises were under private European administration; and in Numbulwar and Angurugu, where other economic enterprises were non-existent. Willowra and Utopia with little council funding, had very small council staffs; in Willowra the staff consisted of a bookkeeper/radio operator, and in Utopia the council, in addition to these positions, only employed field officers to liaise with out-station groups. Schools were important employers in Yirrkala and Ngukurr, in Yirrkala because the school provided a comprehensive outstation service (including Aboriginal teachers in most outstations); and in Ngukurr, where the school, following its reorganisation in 1978 along lines proposed by the community, has placed great emphasis on the employment of Aboriginal teachers. The contrast between the Yirrkala situation and that at Utopia is interesting. Utopia school, the only educational centre for a population of about 600 people, employed only three Aboriginal staff principally because it provided no organised decentralised service, despite the fact that most pupils were outstation dwellers. The community would obviously benefit from a school system similar to that at Yirrkala. Employment levels in health clinics varied for reasons similar to those affecting schools. Both Utopia and Yuendumu employed outstation health workers as well as their central clinic staff (Utopia, through its Aboriginal controlled organisation, the Urupuntja Health Service) but communities such as Numbulwar and Yirrkala had few, if any, health staff living away from the main base. Clinic staff numbers can also vary because of other factors, for example,

the strength of the community's voice in places of power, or changes in population which have not yet led to changes in funding allocation. Currently Finke appeared to be quite fortunate, with three Aboriginal employees and one non-Aboriginal nurse (until recently two) for only about 120 people.

Table 6

Community Aboriginal Employment by Section, 1983
(% total employed)

Community	School	Clinic	OS Res./ Housing Council	Store	Prog. Assoc. Other ent.	Other	Total	Population Number
Yuendumu	18.7	13.3	42.7	5.3	13.3	6.7	100.0	75
Finke	11.5	11.5	42.3	15.4	-	19.2	100.0	26
S. Teresa	18.1	8.3	56.9	2.8	12.5	1.4	100.0	72
Elliott	13.9	13.9	63.9	-	-	8.3	100.0	36
Willowra	25.0	12.5	8.3	12.5	41.7	-	100.0	24
Utopia	13.6	59.1	27.3	-	-	-	100.0	22
Maningrida	12.1	13.2	40.7	19.8	8.8	5.5	100.0	91
Bamyili	25.9	7.4	61.7	4.9	-	-	100.0	81
Umbakumba	23.1	12.8	59.0	5.1	-	-	100.0	39
Angurugu	12.9	9.7	66.1	9.7	-	1.6	100.0	62
Galiwin'ku	16.0	6.2	68.4	3.1	2.7	3.5	100.0	225
Yirrkala	39.8	5.7	42.0	9.1	-	3.4	100.0	88
Croker Is.	11.5	15.4	61.5	7.7	-	3.8	100.0	25
Ngukurr	33.8	10.8	46.2	4.6	-	4.6	100.0	65
Numbulwar	19.2	5.8	65.4	7.7	-	1.9	100.0	52
Total	20.2	10.4	54.6	6.7	4.4	3.7	100.0	983
Non-Abor. Total	43.1	6.6	23.7	8.9	2.6	15.1	100.0	350

Most other employers, with the exception of the retail stores, were of minor importance. The actual number of people employed in the shop varies, both according to the profits it makes (amount available to pay wages) and the management policy it follows. Some shops try to maximise profits, while others prefer to make the store as labour intensive as possible, thus providing more jobs (Young, 1984: chapter 5).

The significance of these main employer groups for Aborigines and non-Aborigines differed. Non-Aboriginal employees were more strongly concentrated in the schools than the councils (43 per cent compared to 24 per cent, Table 6), and a large number worked for other organisations such as the missions and the police. On the whole many non-Aboriginal employees were responsible to outside agencies rather than to the Aboriginal community in which they live, a situation which can cause problems. Not only does the community lack power to control the activities of some of its non-Aboriginal residents but, although the consultation process has improved, its feelings may be ignored when appointments are being made. A single non-Aboriginal individual can make an enormous impact in an Aboriginal community, even when the Aborigines account for over 90 per cent of the population.

The work forces of each employer contained different ratios of men and women and of Aborigines and non-Aborigines. The masculinity ratio (ratio of men to women) for all Aboriginal workers was 1.5 (Table 7). However, in the schools, clinics and shops it was low (0.3, 0.4 and 0.5 respectively) i.e. women outnumbered men in these sections. In councils and other organisations the opposite occurred (masculinity ratio for Aboriginal council workers was 6.6). The non-Aboriginal pattern was similar. The domination of certain types of job by members of one sex is due partly to Aboriginal feelings about what constitutes 'men's' or 'women's' work. These feelings need not accord with customary responsiblity for certain services. In the health field, for example, Aboriginal men took the main responsibility for healing by traditional methods, but health work carried out under non-Aboriginal auspices is perceived to be a women's job. This can, as I have commented elsewhere (Young, 1983:128), cause problems because when a clinic has no male health worker it cannot cater adequately for the needs of Aboriginal adult men. In councils, on the other hand, Aboriginal women are rarely appointed to responsible positions. These, the positions of power-broking between Aboriginal communities and the outside world, are seen as a man's prerogative. When councils are forced to reduce staff to meet financial commitments, women are usually the first to be made redundant (Young, 1983:133).

Although, for the total work-force considered here, Aboriginal employees outnumbered their non-Aboriginal counterparts by almost three to one (Table 7), non-Aborigines were still disproportionately represented in schools and other organisations. In contrast, relatively few non-Aborigines worked in the health clinics and councils. This suggests that the process of 'Aboriginalisation' of the work-force still has a long way to go in some sectors, particularly in the schools and in organisations such as missions. In Santa Teresa, non-Aborigines employed by other (mostly mission) organisations, outnumbered Aborigines by seventeen to one.

Table 7

Community Workforce - Employer by Skill by Sex, 1983

	School	Clinic	Council etc.	Store	Other enterprise	Other	Total
Aborigines							
Skilled M/F	0.2	0.3	8.3	0.4	∞	2.1	1.0
Unskilled M/F	0.7	0.4	5.7	0.9	∞	4.0	3.4
Total M/F	0.3	0.4	6.6	0.5	∞	2.8	1.5
Non-Aborigines							
Total M/F	0.8	0.1	4.6	1.3	8.0	4.0	1.5
Aborigines/ Non-Aborigines	1.3	4.4	6.5	2.2	4.8	0.7	2.8

Differences such as these are undoubtedly caused partly by differences in qualifications and skills. Aboriginal levels of qualification, as the analysis of census data showed, are extremely low. This would be given as a main reason why they should not be given full responsibility in fields such as education or health where, according to non-Aboriginal convention, professional training is essential. This kind of attitude may, however, be too rigid, particularly in rural Aboriginal communities. Aboriginal people may lack any recognised qualifications but may well be able to offer a valuable skill, appropriate to the situation within which they live. This study, in an attempt to assess the incidence of such skills in the work-force, adopted a very broad definition. A skilled person is anyone who, whether qualified or not, has developed a particular attribute which gives him a specific value in the community. Skilled people include, amongst others, teachers, health workers, mechanics, radio operators, stockmen and checkout operators in the shop.

Over 97 per cent of non-Aboriginal workers were skilled while only 62 per cent of Aborigines fell into this category. The proportion of skilled Aborigines varied between communities and between employer groups. While over 80 per cent of people working in the schools or clinics were skilled, only 42 per cent of those employed by councils and 53 per cent of those working for commercial enterprises had some skill. Store workers, 73 per cent of whom were skilled, stood in an intermediary position. The percentage of skilled Aboriginal workers in individual communities ranged from only 43.5 per cent in Angurugu to over 80 per cent at Utopia and Yirrkala (Table 8). Variations can be attributed to differences in policies on the promotion of skill training for Aborigines and in commitment towards replacing non-Aborigines with skilled Aborigines. They also reflect differences in the labour needs of each community. Cattle stations like Willowra, with few positions for general labourers, only employ more highly skilled people - teachers, health workers, stockmen; communities like Yuendumu, with a large council and housing association work-force, have more unskilled employees.

The operation of community policies which favour or hinder 'Aboriginalisation' in skilled jobs is apparent when the Aboriginal share in the skilled work-force is considered. Although Aborigines accounted for 60 per cent of all skilled workers, the proportion in Ngukurr exceeded 75 per cent while in Angurugu it was only 42 per cent (Table 8). Ngukurr community is strongly committed to employing Aborigines wherever possible, in the council office, the school and the health clinic. The only discrepancy at present occurs in the store, privately operated by a non-Aboriginal business organisation from Katherine, but the council anticipate that, in this component also, they will be able to assume control in the near future. Other communities which have made similar determined efforts to follow such policies include Finke, Willowra and Utopia. The structure of the skilled work-force in Angurugu, in contrast,

Table 8

Skilled Aboriginal Workers by Community, 1983

	Skilled Workers		Total Workers	Aborigines
	M	F	T	All skilled workers
	%	%	%	%
Yuendumu	52.2	69.0	58.7	55.7
Finke	62.5	60.0	61.5	69.6
Santa Teresa	46.9	73.9	55.6	54.8
Elliott	23.1	100.0	44.4	50.0
Willowra	64.3	80.0	70.8	68.0
Utopia	66.7	87.5	81.8	64.3
Maningrida	51.7	75.8	60.4	61.1
Umbakumba	38.5	76.9	51.3	52.6
Angurugu	40.5	55.6	43.5	42.2
Yirrkala	68.2	95.5	81.8	62.1
Croker Island	37.5	90.0	57.7	62.5
Ngukurr	55.9	71.0	63.1	75.9
Numbulwar	69.7	73.7	71.2	63.8
Total	51.2	77.8	61.7	59.4

reflects earlier mission policies, according to which Aborigines, while being trained, were unlikely to be able to take on positions of responsibility for several decades. This attitude still persists. Santa Teresa has been similarly affected, although the situation is beginning to change because the Aboriginal Progress Association is now in charge of many components of town administration. The Santa Teresa situation is particularly anomalous because of the unusually high level of formal education in the community (partly acquired through attending boarding schools in southern cities).

Aboriginal men and women differed in their representation in the skilled work-force. The proportion of skilled women was considerably higher than that of men (77.8 per cent, to 51.2 per cent, Table 8), and in some communities (Elliott, Croker Island, Yirrkala) over 90 per cent of working women were skilled. This situation reflects both the lack of less highly skilled jobs for women and the concentration of women into employment spheres which require more skill (for example, health and education). Another important factor is that young women in rural communities are more likely to continue attending post primary classes than young men; for the latter, this is the period when they undergo training for initiation, and may spend extended periods living away from their family homes. In Willowra in 1979 this factor certainly helped to explain why all the more highly skilled jobs were held by women (Young, 1981:150). In this study masculinity ratios for skilled Aboriginal workers in the school, clinic and store were also very low (0.2, 0.3 and 0.4) respectively). Men only dominated the skilled work-force of the council, with a masculinity ratio of 8.3.

Aboriginal Economic Participation through Employment: measures aimed at transformation.

The preceding analysis has shown that, both in the Northern Territory as a whole and in Aboriginal communities in rural areas, Aboriginal participation in wage employment, a fundamental component of the northern economy, remains at a

disproportionately low level compared to the non-Aboriginal sector of the population. Aborigines have lower levels of labour force participation; a higher percentage of them are unemployed, and many are in lower status occupations; few have conventionally recognised qualifications and, even when skills are defined less formally, many lack even basic attributes which fit them for specific types of jobs; and their per capita incomes are far below average. Although these characteristics are common to Aborigines living in towns such as Darwin and Alice Springs and to those in rural Aboriginal communities, the two situations differ in ways which directly affect measures which might be used to effect a change. In the town situation Aboriginal workers compete against non-Aborigines within an environment which is almost wholly non-Aboriginal in character. In order to succeed they must be able to obtain skills and qualifications which are universally recognised. The provision of adequate and appropriate educational and vocational training facilities is essential if people are going to achieve these aims. This requires not only catering for formal educational needs, but also taking into account Aboriginal concepts of work, and the need for support systems which are appropriate to Aboriginal social situations. As urban Aboriginal women stressed at the ANZAAS Conference in 1980, 'We want a broader definition of work to incorporate the principle of work as an enterprise; that includes the idea of doing what is for the benefit of others and for yourself' (Gale, 1983:168).

In the rural community Aborigines exert stronger control over all aspects of their living environment, including their employment situation. As owners of the land and leaders of society they can not only receive preference in competing for jobs but, in many cases, they are now the employers, of both Aborigines and non-Aborigines. In terms of education and training, needed to extend the range and quality of the skills which they can offer, there is greater scope for Aboriginal input and determination. While formal recognition is clearly necessary, especially to ensure that Aboriginal workers are confident that they will not lose their hard-won status (for example, as teachers and health workers), less formal skills are extremely important. The use of these skills can be effective only if Aboriginal ideas about how jobs should be performed are also recognised.

Despite the existence of internal political power in rural Aboriginal communities, control itself continues to remain with the external society. This control is imposed through money, funding without which highly dependent Aboriginal communities could not survive. This system limits the numbers of jobs available in Aboriginal communities. It also hinders the transfer of more responsible and highly skilled jobs from non-Aboriginal to Aboriginal hands, a measure which is usually excused on grounds of cash accountability. However, as the 1983 study suggests, some Aboriginal communities have been able to demonstrate that this kind of transfer is successful. It can only be achieved, first, if the Aboriginal community itself is committed to the policy; and secondly if the right kind of support is provided. This support will not at present lie only in Aboriginal or non-Aboriginal hands but in both, and communities have to accept appropriate help from outsiders. It is here that funding organisations, particularly government, need to make the greatest adaptation because, by providing this kind of support, it should be possible to meet some of their own demands and allow the community more control over its internal workings.

Employment of Aborigines or their promotion to higher level positions in rural communities also must recognise the social situation of those involved. In particular, inequalities in men's and women's skills can lead to difficulty because, although the women may be more highly qualified, they may lack the status to be able to hold positions of authority. Women who have been training as shop managers have said that, although they can do the job, they do not want to hold the position because the pressures upon them would be too great. Similarly, because of the internal social structure of a community, only certain groups of Aborigines can work effectively with one another. Non-Aboriginal ideas of sharing access to prestigious jobs so that everyone participates may be very hard to implement and, despite the elitism which is generated, it is probable that the decisions of the Aboriginal community on these matters are the only ones which are practical.

A final factor is the extent to which Aboriginal access to employment at all levels can be increased through the development of commercial enterprises which both create privately funded jobs and increase community self sufficiency. As the rural survey indicated, such opportunities were rare in most places. However those groups in receipt of royalty payments do have scope for this type of growth, as Altman and Stanley (this volume) have discussed in detail.

In terms of the questions posed in the introduction to this paper, the preceding discussion shows first, that Aborigines are interested in a wide variety of jobs but that they are also interested in acquiring the necessary skills to hold these jobs at all levels; secondly, that they must be fully consulted on the best ways to achieve these aims; and finally, that there is a definite need for many non-Aboriginal workers to see their roles in the rural community work-force as temporary rather than permanent. As far as the broader issues are concerned, increased employment of Aborigines would seem to be one very important way in which their participation in the economy of the north can be extended. But employment alone is not the answer. Their skills and attributes must also be taken into account, skills which, because they have developed in conjunction with a unique knowledge of the region, could surely be used in highly original ways. Ultimately the main hope is that those involved in the formulation and implementation of development policies for the north recognise the importance of the resident population, and give them, whether they are Aboriginal or non-Aboriginal, every encouragement to participate in the changes of the future.

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ABORIGINAL EMPLOYMENT IN THE MINING INDUSTRY

DAVID COUSINS

The mining industry has been identified as a major potential source of employment for Aborigines, especially those in the remote parts of northern Australia (NAEDC, 1982, 1). This is at a time when employment opportunities for Aborigines elsewhere in the pastoral industry have declined and when unemployment in Aboriginal communities averages over 60 per cent of those of working age (for summary, Cousins and Nieuwenhuysen, 1983).

Despite the recent recession, mining has expanded considerably over the past decade. With the discovery of further exploitable mineral reserves this trend is likely to continue. But past experience must cast doubt on the proposition that Aboriginal employment will be substantially boosted by growth in the industry.

Aborigines have a long association with the mining industry. Apart from the study by Rogers (1973) in the late 1960s, however, there have been few detailed assessments of their involvement. Rogers concluded generally that there were very few Aborigines employed in the industry and those that were employed mainly had unskilled jobs. This situation was largely blamed on inadequacies of government, company and union policies. Governments lacked a co-ordinated plan and commitment to improve the socio-economic status of Aborigines, industrialists were only mildly concerned about Aboriginal employment and the economic development of nearby Aboriginal communities and unions had a minimal influence on the employment conditions of Aborigines.

Table I below provides details of total Aboriginal employment in mining over the decade 1971-81. Overall, there appears to have been little change in total numbers. Aborigines account for less than 1 per cent of total employment and this proportion has actually declined slightly as non-Aboriginal employment has risen much more rapidly. Mining is only slightly more important for Aborigines as a source of employment than for non-Aborigines. Aborigines in the industry accounted for 1.5 per cent of the Aboriginal work force in 1981 while non-Aborigines in the industry represented 1.4 per cent of the total non-Aboriginal work force.

TABLE 1

Aboriginal and Torres Strait Islander Employment in the Mining Industry, Census 1971, 1976, 1981

	1971	1976	1981	1971-81 (% change)
Aborigines/Torres Strait Islanders	603a	617	638b	5.8
Total Mining Workforce	76,023	72,687	88,994	17.1
Aborigines/Torres Strait Islanders % of Total	0.79	0.84	0.72	(8.9)

a. Aborigines only.
b. Assumes no change in Tasmania and A.C.T. from 1976 as 1981 figures are not yet available.

Source: Australian Bureau of Statistics, Census of Population and Housing, 1971, 1976, 1981.

Nearly one half of the Aborigines are involved in mining work in Queensland mines (see Table 2). Western Australia also has significant numbers, whilst numbers in the NT have fluctuated and in New South Wales declined steadily. Since the Aboriginal population is concentrated in the northern part of the continent, it is not surprising that most Aborigines employed in the industry are in the northern states, although in terms of its contribution to total industry output, New South Wales is the largest mining state. However, it is interesting that so few Aborigines are employed in the industry given the close proximity of many Aboriginal communities to mining projects.

The limited employment of indigenous people in mining in Australia parallels the experience of other western countries such as Canada and USA (Berger, 1977, 115-141).

TABLE 2

Aborigines and Torres Strait Islander Employment in the Mining Industry by State, Census 1971, 1976, 1981.

	1971a	1976	1981
NSW	80	73	62
VICTORIA	8	23	5
QUEENSLAND	160	279	299
SA	86	31	25
WA	162	137	153
TASMANIA	n.a.	24	n.a.
ACT	n.a.	0	n.a.
NT	96	50	70

a. Aborigines only.

Source: Australian Bureau of Statistics, Census of Population and Housing, 1971, 1976, 1981.

Case Study Evidence of Aboriginal Employment

Table 3 lists the projects included in a recent survey of mines in northern Australia and provides details of their Aboriginal and non-Aboriginal employment (Cousins and Nieuwenhuysen, 1984). Comparison of Table 3 with Table 2 indicates that the Weipa and Mount Isa projects provide a large share of the Aboriginal employment in Queensland mines; the Gove Peninsula, Groote Eylandt and Alligator Rivers region uranium mines provide most of the Aboriginal employment in NT mines (non-completion of census forms and the inclusion of all Yirrkala Business Enterprise (YBE) employees, including those in non-mining activities, probably account for the apparent rise in numbers in 1981); whilst the Mt. Newman, Hamersley and Argyle diamond projects account for a relatively small proportion of the Aborigines employed by the industry in Western Australia.

TABLE 3

Employment of Aborigines by Major Mining Companies
June-July 1982

Company	Place	Aborigines	Total	% Aborigines
COMALCO	Weipa	81a	1,065	7.6
MIM	Mount Isa	129	5,084	2.5
NABALCO	Gove Peninsula	35b	892	3.9
GEMCO	Groote Eylandt	21	477	4.4
RUM	Jabiru	10	390	2.6
QML	Nabarlek	14c	180	7.8
MNM	Pt. Hedland, Newman	15	4,007	0.4
HAMERSLEY	Dampier, Tom Price Paraburdoo	13	4,200	0.3
AJV	Argyle, Kununurra	10	190d	5.2
T o t a l s		328	16,485	2.0

a. Includes Torres Strait Islanders.

b. Employed by Yirrkala Business Enterprises Pty. Ltd. (YBE)

c. Excludes two female trainees on short-term work experience.

d. Includes contract workers.

Comalco	Comalco Ltd.
MIM	Mount Isa Mines Limited.
Nabalco	North Australian Bauxite and Alumina Company Limited.
GEMCO	Groote Eylandt Mining Company Proprietary Limited.
RUM	Ranger Uranium Mines Proprietary Limited.
QML	Queensland Mines Limited.
MNM	Mount Newman Mining Company Proprietary Limited.
Hamersley	Hamersley Iron Pty. Limited.
AJV	Ashton Joint Venture.

On average Aborigines account for 2.0 per cent of the total work force of the nine organisations listed, slightly more than the proportion Aborigines represent in the total mining industry work force. There are, however, marked variations between companies with QML and Comalco having relatively high proportions of Aboriginal employees and Hamersley and MNM very low proportions.

Positions held by Aborigines are predominately unskilled or semi-skilled blue-collar jobs. Where skilled positions are filled they almost always involve tasks requiring ability to operate or repair mechanical equipment. Staff positions are seldom filled by Aborigines and, apart from MIM, Aboriginal employment is concentrated in what the companies generally regard as ancillary activities - that is, activities which do not affect continuous production or process operations.

Rogers also examined Aboriginal employment with Comalco, Nabalco and Gemco. Aborigines now comprise approximately the same proportion of Comalco's work force as they did ten years ago but numbers have grown as the operation has expanded and there has also been some increase in the variety of positions held. Nabalco now have no Aborigines directly employed but provide indirect employment through YBE, an Aboriginal contracting company. YBE has expanded considerably since the mid-1970s and the number of Aborigines obtaining employment has consequently also expanded. But, again, they primarily occupy labouring or heavy equipment operator positions. Some important changes have occurred at Groote Eylandt with Aboriginal employment declining both absolutely and in relation to the non-Aboriginal work force, especially during the recent recession. The recession has had a disproportionately high effect on Aboriginal employment as most Aborigines occupy unskilled positions where employment cuts have been greatest.

Why do Aborigines have so limited an involvement in the mining industry? The case studies help to answer this question by highlighting influences on company motivation to employ Aborigines and influences affecting Aborigines' motivation to work in the industry.

Company Motivation to Employ Aboriginals

The relative cost of Aboriginal labour

partly because of this, highly capital intensive. Employment opportunities are consequently restricted, and those that are available frequently require sophisticated technical knowledge.

The close proximity of Aboriginal communities to mining projects, however, significantly reduces the cost of Aboriginal labour compared to that of non-Aboriginal labour recruited off-site. Substantial savings are, for example, made on recruitment and resettlement costs. In March 1982 these costs for a married wage employee recruited off-site by Gemco totalled around $4,600 - they were nearly double this for a married staff employee. These figures take no account of the administrative and recruitment officer costs incurred by the company.

Accommodation is, however, the major cost saving mining companies make when employing Aboriginal labour. Most often Aboriginal workers continue to reside in their own communities and not in company-provided accommodation. Whilst this may frequently be their preferred style of living, company accommodation policies also seem to discriminate against Aborigines. Some companies claim that they cannot construct housing for all workers and therefore have to ration it on the basis of the employee's skill, length of service etc. Since Aborigines are predominately in the unskilled category many are not offered housing. Single quarters accommodation may be available, but this is clearly inappropriate for a married person. Further, since company houses are not available for retired employees, there is an incentive for local people to continue to reside in their own communities. The increased tendency of mining companies to rely on contract work for Aborigines has, perhaps, lessened the necessity to provide Aborigines with accommodation.

Only at Weipa has significant integration of Aboriginal and non-Aboriginal workers in company accommodation been achieved. Aborigines and Torres Strait Islanders represent approximately 10 per cent of the Weipa North population which totals around 4,000. At Groote Eylandt and Gove Peninsula only one or two Aboriginal families live in the company towns. Few Aboriginal families live at Jabiru but here there are plans to construct new accommodation for Aborigines in a separate part of the town. QML has built some permanent accommodation for the nearby local residents; other companies have generally not provided funds to upgrade housing standards in the nearby Aboriginal communities.

Aborigines are frequently employed for short periods of time and as casuals. As such they often do not qualify for additional benefits such as annual travelling allowances. This again tends to reduce the costs of their employment.

Of the projects examined, the cost advantages of employing Aboriginal labour seemed greatest at Groote Eylandt and to a lesser extent at Weipa. There is a ready availability of non-Aboriginal labour at Nhulunbuy which tends to reduce the relative cost advantage of Aboriginal labour, especially since some prospective employees, friends or relatives of existing employees, are already housed in company accommodation. In the Alligator Rivers region the difference seems minimal because of the greater ease of recruiting non-Aboriginal labour from Darwin and because the companies provided some accommodation for their Aboriginal workers. At Port Hedland, Newman and Mount Isa there did not appear to be any cost savings to be gained from hiring Aboriginal workers in preference to non-Aborigines.

Mining companies are also aware of the potential costs to be incurred by not employing Aborigines. Given public attitudes, the failure to employ Aborigines may provoke Governments to act in ways which impose higher costs on mining companies, for example, through special employment legislation or provisions for Aborigines to receive royalties from mining. Aboriginal employment may have been encouraged by a desire to avoid such costs. There was concern at Weipa that if the company did not involve Aborigines in the project the State Government would seek to re-negotiate royalty arrangements, and Federal Government pressure had influenced the company to adopt an Aboriginal training scheme. at Argyle it was also recognised that local Aborigines would receive less financial reward from diamond mining than they would from mining projects in the NT and this may have prompted AJV's positive Aboriginal employment policy. QML's belated efforts to train Aborigines seemed to be related to its desire to gain access to other uranium ore bodies in Arnhem Land and to mollify criticism of its policies by Northern Land Council and Government officials.

The relative productivity of Aboriginal labour

The net return from labour is influenced not only by its direct costs of recruitment, wages, accommodation and so on, but also by its productivity. All mining companies indicated that because of basic handicaps of lack of formal western education, industrial work experience and inability to adhere to industrial work routines, many Aborigines could not obtain regular employment. The companies indicated that they could not relax standards especially in areas where continuous operation was critical. Substantial cost penalties would be incurred, for example, if the continuous processing operations of the alumina plant at Gove Peninsula or the uranium milling plants in the Alligator Rivers region were interrupted. Also Comalco suggested this was the major reason Aboriginal employees were mainly in non-essential activities.

Evidence of the work performance of Aborigines employed by the mining companies is limited as company records are often not classified according to race or are not publicly available. However, at Groote Eylandt Aborigines were found to have higher rates of absenteeism and labour turnover. Between July 1981 and June 1982 absenteeism for all wage employees at Gemco ranged between 20-40 per cent of possible productive time each fortnight. Aborigines' rates were often five times higher than those of non-Aborigines. Over the same period Aboriginal terminations amounted to 80 per cent of the average number of Aboriginal wage employees compared to 46 per cent for non-Aborigines. As Table 4 highlights, there was also a lack of continuity in employment at

Nabarlek though this may also reflect the limited employment opportunities available, both in terms of the number of jobs regularly provided and their nature. No difference in work performance was found at Mount Isa, not unexpectedly in view of this company's insistence on common treatment for all workers. In the Pilbara, MNM found that Aboriginal apprentices were less successful than non-Aboriginal apprentices.

The case study evidence in general shows that there were marked variations between Aborigines in their work performance. Where detailed records were available, see for example Table 4 for Nabarlek, they revealed work records which ranged from very good to very poor. It is clearly inappropriate to stereo-type all Aboriginal workers as being unreliable or inefficient.

TABLE 4

Work History of QML'S Aboriginal Employees July 1981 - May 1982

Employee Number	Number of Weeks Employed	Maximum Length Continuous Service (weeks)	Number of Times Re-employed	Number of Weeks By Hours Worked/Week			
				40+	20-39	10-19	<10
1	4	4	-	-	1	1	2
2	6	6	-	-	3	1	2
3	26	16	2	6	18	2	-
4	10	7	2	1	5	2	2
5	6	3	2	-	2	-	4
6	1	1	-	-	-	-	1
7	7	7	-	5	2	-	-
8	46	34	2	17	24	4	1
9	23	10	4	7	8	6	2
10	15	10	2	-	8	7	-
11	1	1	-	-	1	-	-
12	1	1	-	-	-	-	1
13	1	1	-	-	-	-	1
14	5	4	2	-	2	2	1
15	4	2	2	-	1	1	2
16	39	22	5	-	34	5	-
17	20	3	11	2	3	9	6
18	5	3	-	-	3	1	1
19	1	1	-	-	-	1	-
20	24	22	2	-	13	3	8
21	18	11	2	4	13	1	-
22	45	26	3	23	19	2	1
23	29	15	4	-	23	4	2
24	22	15	3	-	-	16	6
25	13	7	-	1	8	4	-
26	5	4	2	-	1	3	1
27	22	11	2	12	9	1	-
28	16	8	4	3	5	6	2
29	11	5	4	-	3	6	2
30	7	4	-	-	4	-	3
31	3	3	-	-	3	-	-
32	12	6	5	1	5	3	3
33	22	8	4	4	11	2	5
34	17	7	6	-	3	6	8
35	12	12	-	5	7	-	-
36	6	4	-	-	1	3	2
37	5	3	2	-	3	-	2
38	1	1	-	-	-	-	1
39	5	3	2	-	1	2	2
40	1	1	-	-	-	-	1
41	2	2	-	-	-	2	-
42	10	5	3	1	6	3	-
43	20	5	10	-	11	5	4
44	2	1	2	-	-	-	2
45	2	1	2	-	1	1	-
46	3	1	3	-	2	-	1
47	1	1	-	-	-	1	-
48	1	1	-	-	-	1	-
49	12	8	3	-	2	4	6
Averages	11.6	6.9	2.1	1.9	5.4	2.5	1.8

Cultural Differences between Workers

Work productivity can be affected by the way companies organise work practices. Where there are substantial cultural differences between workers it is important, if productivity is to be maximised, that companies take account of these differences in their treatment of workers.

MIM and MNM do not recognise any differences between their Aboriginal and non-Aboriginal employees. MIM claim that the 'urban' Aborigines at Mount Isa are no different from the rest of the community except, perhaps, for their greater poverty. Moreover, both companies claim that it would be discriminatory to treat workers differently and undesirable to do so as it would affect worker morale.

Other companies in more remote parts do accept that there are differences between the local Aboriginal people and the rest of their work force and to varying degrees adopt special policies because of this. The employment of specialist Aboriginal liaison officers is an important development which has resulted in improved communication and relations between non-Aboriginal and Aboriginal company employees. Most of these positions have been filled by ex-Government Aboriginal Affairs agency employees. Nabalco, however, does not employ such a specialist. The employment of Aborigines as liaison officers had not been very successful, the positions being regarded as token in nature by the companies, and the individuals concerned have often been placed under considerable stress in dealing with management and Aborigines of different clan groups.

The quality of supervisor/employee relationships appears crucial for the success of Aboriginal employment. Improvements in this area at Weipa occurred following the appointment of a specialist Aboriginal liaison officer, whilst at Groote Eylandt declining Aboriginal employment seems to be partly related to the employment of new less experienced and less effective supervisors. Relatively poor communication and relations with Aborigines have existed at Gove Peninsula and few Aborigines have been employed by Nabalco at least partly for this reason.

No company has modified employment conditions in essential parts of their mining operation by, for example, introducing half shifts, modifying techology and so on to reflect Aboriginal distinctiveness, but in other areas flexible employment schemes have been introduced. At Weipa and Groote Eylandt Aboriginal work gangs with non-Aboriginal supervisors have been organised and also at Weipa and other places contract employment based on a labour pool has been utilised. Contracts are arranged through the Aboriginal Community Councils at Weipa, Groote Eylandt and Roebourne and through individuals at the Aboriginal out-station near QML's plant at Nabarlek. MNM has not encouraged contract employment. At Gove Peninsula, YBE contracts labour services, supplies materials and hires equipment to Nabalco. YBE's success appears to have much to do with the quality of its management, the identification of Aborigines with the company and the flexibility of its employment policies.

Aside from providing more flexible working arrangements contract schemes can help to build community management skills and self-sufficiency. Typically, the Community Councils retain a share of the payments made by the mining companies.

All companies treat Aborigines and non-Aborigines alike in respect of punctuality, but absenteeism for Aborigines is often regarded differently. Growing absenteeism may reflect declining work motivation and to counter this most companies take the approach of suggesting that an offending individual ceases work for a time on the understanding that work will again be available at a later date. Re-hiring rates for Aborigines are therefore much higher than for non-Aborigines. At Weipa and Groote Eylandt absenteeism for ceremonies is tolerated though there has apparently been some increased tendency to organise ceremonies outside working hours.

There are many other ways in which the companies can take account of Aborigines' distinctiveness. Awareness of the importance of kinship relationships in Aboriginal society, Aboriginal values, and preferences concerning the type, time and location of work, for example, is important for successful employment. Companies employing specialist liaison officers seem far more aware of such factors than do other companies.

Training Schemes

Work productivity can also be increased by training. However, mining companies provide few training opportunities for Aborigines and where training is provided it often seems poorly organised. Limited on-the-job training may be given by foremen, but there are few Aborigines in special training positions (see Table 5). MIM, MNM, AJV and Hamersley do not have special Aboriginal training schemes at all, although at Port Hedland and Mount Isa post-secondary and special education is available for Aborigines. AJV have indicated a willingness to establish special training schemes for Aborigines but have so far relied on Government funding to train potential employees. RUM and QML were slow to establish effective training schemes, despite the obligations they accepted under agreements negotiated prior to mining with the Commonwealth Government and the Northern Land Council respectively.

TABLE 5

Aboriginal Trainees with Major Mining Companies
June-July 1982

Company	Specialist Training Scheme(s)	Trainees	Apprentices
COMALCO	Heavy Equipment Operation	6	2
MIM	-	-	37
NABALCO	Heavy Equipment Operation	12a	1b
GEMCO	Trainee-Link Scheme (c) Drilling and blasting Heavy Equipment Operation	3	2
RUM d	Horticulture	1	-
QML e	Road Maintenance	5	-
MNM	-	-	6
HAMERSLEY	-	-	-
AJV	-	-	-
	T o t a l s	27	46

a. Employed by YBE but funded by NABALCO.

b. YBE apprentice using NABALCO training centre.

c. A variety of blue and white-collar positions including laboratory assistants, first-aid, vehicle servicing etc. were available under the trainee-link scheme.

d. The number and variety of training positions with RUM expanded significantly after July 1982.

e. QML have advertised two apprenticeship positions indicating a preference for Aboriginal applicants.

With the exception of Gemco the special Aboriginal training schemes have tended to be restricted to narrow job classifications. Most have concentrated on heavy equipment operation where formal education is perhaps less important and where many Aborigines show a high aptitude and motivation. The schemes also generally seen to have been poorly designed and financed. Not surprisingly their success has been very limited. Comalco's Aboriginal Training Scheme, however, stands out as one that was carefully planned and implemented.

Under the Comalco scheme a limited number of trainees, (six to seven at the one time) enter a twenty-month training period and are taught to operate and service different types of heavy equipment. Successful completion of training ensures that plant operator certificates, recognised throughout Australia, are obtained and that permanent employment and accommodation with Comalco are available if desired. The scheme is run separately from the normal production operations of the company, with its own equipment, supervisor and instructor, but essentially provides on-the-job type training. Trainees have constructed roads, recreation facilities at the Aboriginal reserve and the mining town, and undertaken regeneration and mining work. Fourteen of the 22 trainees so far have successfully completed the course and ten have continued to work for the company. Six successful trainees are living in Comalco married accommodation. Some others lived in the company town for a time, but later returned to the Aboriginal reserve. The remainder have moved out of the district.

Trainees were initially selected by a committee comprising Government observers, Comalco representatives and the Aboriginal Council of Weipa South. About 40 applications were received and these were ranked according to criteria of age, marital status, previous work experience and performance, community behaviour, possession of a drivers licence, and ability to do the job. In nearly all cases trainees had some previous work experience as stockmen, they were all over 25 years of age and generally had wives and children. Company officials suggested that work motivation was stronger among such persons.

Aside from careful selection of trainees, the scheme has a number of features which could help increase the effectiveness of the training provided. It provides close supervision and support for trainees; trainees work together as a group but can still progress at their own rate and the progress of trainees is regularly reviewed. Finally, the scheme tries to teach self-confidence in the work situation and good work habits as well as the technical skills required for driving and servicing different kinds of vehicle.

Although it is difficult to compute accurately, the cost per trainee is high. The company put the initial capital cost of the heavy equipment used by the trainees at $239,000 and the operating costs, between 1977-81, at $899,000. The latter covered the wages of the supervisor, instructor and trainees (who receive the same benefits as other full-time employees), fuel and spare parts. Government funding provided $233,000 of the operating costs. The net cost to the company is less than these figures suggest, however, since the trainees did undertake productive work.

In general, mining companies have been reluctant to commit the high level of resources required for effective training programmes. The current status of Comalco's training scheme even seems uncertain as the company believes it has virtually exhausted the supply of suitable trainees. Its reluctance to continue the scheme coincides with reduced demand for plant operator positions with the company due to the increased capacity of vehicles and more importantly the recession in the bauxite industry.

Apart from MIM and MNM it is rare for the mining companies to have Aboriginal apprentices. Companies are not prepared to relax their own apprenticeship entry standards to enable more Aborigines to become qualified skilled tradesmen. In many cases Aboriginal workers can, and in some instances do, perform the

tradesmen's skills adequately, but may not have the educational background required to pass the written theoretical parts of the training. The greater number of Aboriginal apprentices at Mount Isa and Port Hedland partly reflects the higher western educational attainments of people at these centres. Few attempts are made to provide additional coaching for Aborigines so that they can meet apprenticeship entry requirements and cope with the theoretical examinations. Gemco, however, through its close association with the Angurugu school gives direct encouragement to education authorities to raise standards in required areas.

Mining companies offer apprenticeships to gain skilled tradesmen and also to help maintain stable employment. If an employee's children cannot obtain adequate training and employment in the area, the employee may be forced to move elsewhere. This incentive to provide apprenticeship training generally does not exist with Aborigines.

Mining companies heavily involved in apprenticeship training - MIM, MNM - also suggest that their intake of apprentices is not influenced by the much larger Government subsidies available for Aboriginal apprentices. (MNM indicated that subsidies under the CRAFT scheme for non-Aborigines were about 3 per cent of the total cost of training whereas those available for Aborigines under the TAP scheme were 20 per cent of this cost). The key criterion used in selection was the likelihood of success of the applicant.

Some companies have increased their efforts to train Aborigines in recent years. Comalco introduced its Aboriginal Training Scheme in 1977 and in 1980 Gemco introduced a trainee-link scheme. The latter scheme allowed senior students at the Angurugu school to spend three days a week at Gemco and the remaining two days at the Adult Education Centre. QML and RUM have also taken steps recently to improve training opportunities for Aborigines. On the whole though it seems that the cost advantages of employing Aborigines are not sufficiently great to justify high training costs compared with the options of employing local non-Aboriginal labour or recruiting non-Aborigines from elsewhere in Australia. Possibly, it is at Groote Eylandt and Weipa that the cost advantage of Aboriginal labour is greatest and it may be partly because of this that these companies have been more involved in training Aborigines.

Attitudes toward Aboriginal employment

Although companies have a strong desire to minimise unit labour costs, employment policies also appear to be influenced, to some degree, by attitudes toward Aborigines. In some instances companies have accepted a social responsibility to employ Aborigines; in others, discrimination against Aborigines by management, other workers and their unions has occurred.

The term social responsibility is here used to mean that companies incur costs in excess of the minimum that they are required to accept legally and that are necessary to maximise long run profits (Haas, 1977). It is more than just enlightened self-interest. Most major north Australian mining projects are not 'marginal' and consequently goals other than strict long-run profit maximisation can be pursued.

Of the companies considered, Gemco and more recently Comalco, seem to have shown the most social responsibility in relation to the employment of Aborigines. However, the recession in the manganese and bauxite industries has limited both the capacity and opportunity of these companies to act in this manner and this may help explain why they have reduced the numbers employed in 1981-82 and become stricter over absenteeism. The generally positive approach of Gemco reflects also the influence of the Church Missionary Society which, under the agreement made in 1963 to transfer mineral rights to BHP, persuaded the company to accept certain obligations concerning employment and training, and since then has had a continuing presence in the Angurugu community.

Frequent suggestions of discrimination against Aborigines in employment have been made. In particular, these concern mining in the Pilbara and at Gove Peninsula. In one place it was widely considered that non-Aboriginal workers had refused to work with Aborigines in an essential part of the mining operation, and management had accepted this. Individuals within mining companies often appear to have discriminatory attitudes toward Aborigines and negative stereo-typing is common. These attitudes result in indirect discrimination with companies often being disinclined to adopt policies which take account of Aboriginal distinctiveness.

In general unions seem to have done little to promote employment and training opportunities for Aborigines in the mining industry or to improve their working conditions. The unions involved at Weipa are perhaps exceptions as they were apparently supportive of Comalco's efforts in this area. QML and Hamersley do not encourage union membership by Aborigines. The unions concerned do not pursue this and distance themselves from Aboriginal issues. QML and Hamersley provide contract work and the Aborigines involved do not have the full protections normal employees have. Union concern over Aboriginal employment and training has mainly been to ensure that existing members are not disadvantaged and that common treatment exists for all workers.

Aboriginal Motivation for Employment

The success of company efforts to employ and train Aborigines hinges, to a large degree, on the motivation Aboriginal people have for employment. There is, however, a wide-spread belief that Aborigines have relatively weak motivation for paid employment. It is suggested that this is partly because of their lower income needs, being less materialistic and able to survive adequately on the unemployment benefit supplemented by other welfare benefits and the implicit income derived from hunting and fishing. Also it is suggested that employment does not necessarily provide Aborigines with the status, identity, interest and social interaction it does for many non-Aboriginal people (Australian Aboriginal Affairs Council, 1981, 27-40).

Although such statements may be valid for many Aboriginal people there are also likely to be many to which they do not apply. Importantly also, observance of weak or inferior employment motivation should not necessarily imply its acceptance, particularly if it is the result of past lack of opportunity. There appears to have been a possibly unwarranted tendency for Governments to justify continuation of lack of opportunity for Aborigines on the grounds that weak employment motivation is a cultural trait that Aboriginal people have no desire to change.

From the case studies a number of observations concerning motivation to work in mining can be made. First, mining company officials claim that the payment of unemployment benefit (sit-down money) and now royalties to Aborigines, does adversely affect willingness to work, especially since the differential between these payments and payments for unskilled work are not particularly great. However, apart from general impressions the evidence on this was inconclusive and contradictory.

Secondly, employment motivation seems to have been greater where past cross-cultural relationships have been less fractious and where good communication between mining company personnel and Aborigines was developed at the early stages of project development. Part of the success of Aboriginal employment at Groote Eylandt, for example, may have been due to the relative absence of past cross-cultural conflict and the early care taken by Gemco to communicate with Aboriginal representatives and to avoid sacred site destruction. In comparison, a background of poor relationships existed at Gove Peninsula and to some extent at Weipa. In the Kimberley older Aborigines apparently still remembered the conflicts which occurred between their people and the early settlers and there was a general distrust of AJV and other mining companies. The manner in which AJV reached agreement to mine an important sacred site area also caused animosity among Aboriginal communities in the Kimberley. From the early days Aborigines have largely been excluded from the

iron ore projects of the Pilbara. Many now expect they will not obtain work with the mining companies here and so do not bother to apply.

Thirdly, strong attachment to the land may be a factor which affects the willingness of Aborigines to work in particular mines. Aborigines have undertaken small scale mining operations in the Pilbara and elsewhere and do not in principle seem opposed to mining. But large-scale capital intensive mining projects are much more destructive of the land, especially if undertaken without concern for sacred and other sites of significance. Many Aborigines may feel reluctant to be involved in such destruction. It is interesting in this regard that the Aborigines employed in mining generally were not closely associated with the local area. At Weipa hardly any of the original residents had been employed by Comalco and at Groote Eylandt many past employees had traditional attachments to Bickerton Island and other places such as Numbulwar on the mainland rather than Groote Eylandt itself. Similarly RUM, MNM and AJV had mainly employed non-local Aborigines.

Fourthly, the type of work available to Aborigines affects their employment motivation. The companies suggested there was stronger demand for outside work especially driving heavy vehicles. There seemed to be little desire to work night shifts; numbers employed by Gemco fell after the company put its Aboriginal workers on the night shift mining roster, but some Aborigines do work with the security section at night.

There seemed to be stronger motivation for positions recognised by the Aboriginal community as having reponsibility. Where people have responsible positions they often act as 'models' for others in their community. Failure to provide opportunities for promotion to positions of responsibility in some cases seems to have adversely affected work motivation.

In some communities there are opportunities for employment outside mining which generally seem more attractive to Aborigines. At Weipa and Argyle, for example, employment in the pastoral industry is generally preferred, possibly because it is closer to a life style that Aborigines have previously had. Similarly Aborigines at Jabiru generally prefer to work as rangers with the Australian National Parks and Wildlife Service than in mining. Employment in Aboriginal organisations is also generally preferred to that offered by the mining companies, for on Groote Eylandt the first preference for employment is with the Community Councils and at Gove Peninsula it is with YBE.

Fifthly, non-wage payments have been used in some places to boost employment motivation. At one stage breakfast was provided for Aboriginal employees at Groote Eylandt and YBE has provided lunches and cigarettes for its workers, deductions being made from wages to meet the costs involved. Transport to and from work, generally provided for employees living in the mining towns is, however, not always provided for Aborigines living at nearby Aboriginal communities.

Finally, alcohol has had mixed effects on employment motivation. At Groote Eylandt there is strong evidence that restrictions on the sale of alcohol to company employees only, encouraged Aborigines to seek employment. And when the Angurugu community banned Aboriginal workers from gaining access to the Alyngula Social Club employment fell. The desire to purchase alcohol may have increased income needs and therefore boosted employment motivation but the effects of alcohol have been reduced motivation and capacity for employment.

A General View of the Limited Employment of Aboriginals in Mining

In addition to the factors influencing companies to employ Aborigines and Aboriginal motivation to work in mining, other factors also affect numbers employed including, for example, the type of mining, nature of the mining technique and its location in relation to Aboriginal communities. The size, sex and age composition of nearby communities also influences the size of the potential local Aboriginal work force. Although it is difficult to reach

definite conclusions, there seems little doubt that a greater number of Aborigines could be employed in mining if some companies in particular, but all companies in general, adopted more positive employment policies. A greater commitment to Aboriginal employment, resulting in more enlightened policies, would no doubt also have beneficial effects on Aboriginal employment motivation. And companies would not necessarily view their potential Aboriginal work force as being limited to people living locally, but may develop fly-in fly-out schemes or other arrangements to ensure that employment opportunities were more widely available.

At present the economic and other incentives for mining companies to adopt more positive policies are not sufficiently strong. Mining companies frequently claim that it is the responsibility of Governments to help Aboriginal people improve their access to the labour market. However, the companies are often in a better position to help in this regard and arguably have a moral responsibility to do so, particularly where mining is on land traditionally owned or occupied by Aborigines.

Bougainville - Contrast of Approaches

The limited involvement of Aborigines in mining company activities in northern Australia contrasts sharply with the experience of Bougainville Copper Ltd. which operates a large open pit mine at Panguna in the North Solomons Province of Papua New Guinea. Here, at the end of 1981, Papua New Guinea nationals comprised 81 per cent of the total work force of 4,178, (Bougainvilleans made up approximately one-third of the work force), and the indigenous people were employed throughout the organisation (Bougainville Copper Ltd., 1981).

The Bougainville operation was established in an area where indigenous people maintained strong links with the land, their economy being based on subsistence agriculture. Previous contact with other races was limited, especially in the mountain region. The people lacked experience and the education and skills needed for industrial employment. But CRA went to great lengths to overcome these problems (Vernon 1969). Anthropologists and local language experts were employed to improve communications with the indigenous people; psychologists were employed to assess accurately skills and learning potential; visits to other mines were arranged; expatriate employees were taught to speak Pidgin and informed of the local culture; food was purchased from the local people to further business enterprise; strict regulations were adopted to minimise conflicts between indigenous and expatriate employees and effective training schemes for indigenous people were introduced. Scholarships were provided for students, visits were made to schools and a separate training department and institution was established where basic language, numeracy and living skills were taught in conjunction with work skills. Special leave without pay for up to 10 days was also granted to enable indigenous employees to fulfil family or village obligations.

The substantial commitment to training has also contributed greatly to the successful indigenisation of the company's work force. A Mine Training Programme has produced 600 skilled tradesmen between 1972-81. During this time approximately K40 million (around $50 million at the current rate of exchange) was spent on training. In 1981, 393 employees, nearly 12 per cent of the total, underwent formal training (296 apprentices, 51 undergraduates, and post graduates, and 46 post-trade tradesmen). A further 271, approximately 8 per cent of the total, attended management and secretarial training courses on site (Bougainville Copper, 1981).

What Companies can do to increase Aboriginal employment

The Bougainville experience and the experience of some Australian mining companies at different times suggests that with commitment there are various ways in which mining companies could increase their employment of Aborigines. The following steps could for example be implemented if appropriate.

Appoint Aboriginal liaison officers

Specialist Aboriginal liaison officers can help management and others to increase their understanding of Aboriginal employees and facilitate communication with them and their communities. Liaison officers can become important contact points for Aborigines in what are often unfamiliar organisational structures.

Modify recruitment and selection procedures to recognise cultural and socio-economic differences

At present the recruitment and selection procedures of some mining companies discriminate indirectly against Aborigines by failing to take account of cultural and socio-economic differences. It is important, for example, that job vacancies are notified in a manner which is appropriate for Aborigines. Many Pilbara jobs are only advertised in Perth or on company notice boards. Selection should also only be made on the basis of characteristics relevant to the particular job. Language and medical standards sometimes seem unduly restrictive and regard for such matters as prior criminal convictions and stability of past employment in screening applicants may, unless the full circumstances are ascertained, also unduly disadvantage Aborigines. The use of culturally-biased intelligence tests should also be discouraged. And in view of past discouragement, it is important that companies actively seek out Aboriginal employees.

Provide greater recognition of Aboriginal cultural distinctiveness in employment practices

Case study evidence suggests that some companies in particular fail to take adequate cognizance of the cultural distinctiveness of Aboriginal people in their employment practices. There appears to have been a lack of awareness of the importance of kinship relationships, of the sensitivity required by supervisors in dealing with Aboriginal workers and when employing Aboriginal women. There has been indadequate investigation of Aboriginal work motivation and a reluctance to give special leave for extended periods for the pursuit of traditional activities. Training for non-Aboriginal workers in Aboriginal culture and history often seems superficial and of dubious value for creating awareness of current life styles. Hardly any non-Aboriginal company employees appear to have learnt to speak Aboriginal languages.

The limited recognition given to Aboriginal cultural distinctiveness sometimes simply seems to reflect the ignorance of senior management and the failure to develop effective channels of communication with Aboriginal people. In other cases, the failure has been a deliberate policy based on the belief that 'special' treatment for one particular group is undesirable. Management cannot entirely be blamed for this as non-Aboriginal workers supported (unofficially) by their unions frequently insist on common treatment for all workers. They equate 'special' treatment with positive discrimination, whereas in reality, insistence on common treatment often means negative discrimination for Aborigines.

Greatly improve training opportunities for Aborigines

Given basic handicaps of inadequate education, lack of appropriate skills and work habits, it is clearly important that better training opportunities be made available to Aborigines, both off and on-the-job. Training should not only equip people to do a job, but allow them to advance within an organisation. To be effective training needs to be adequately resourced and professionally organised.

In some areas Aborigines successfully completing training courses in local post-secondary or special institutions have been unable to obtain employment. The benefits of training are quickly dissipated under these circumstances and

the discouragement from the individuals concerned may have long term adverse effects on work motivation. Mining companies could greatly assist Aboriginal advancement by guaranteeing

Provide a variety of employment opportunities

Provide a variety of employment opportunities

There seems to be a growing tendency for mining companies to rely on contract work for Aborigines. It is desirable that such work be made available as it appears to meet the preferences of many individuals and communities. However, direct employment should continue to be available, otherwise Aborigines may be denied opportunities of integrating into the general community in desired ways. Aborigines with proven work records under contract schemes should not be denied the opportunity of direct employment. Further, employment at different levels should be provided and Aborigines with valuable skills should be afforded appropriate status.

Reliance on Corporate Social Responsibility is not enough

Mining companies in Australia are unlikely to implement fully suggestions of the kind given in the previous section unless they are given substantial additional incentives to do so. In this regard Australian experience is quite different from that at Bougainville where CRA's strong motivation and commitment to involve local people stemmed from influences including a desire to overcome the hostile reactions of some local people encountered during the development stage, a desire to avert the possibility of nationalisation following the granting of independence to the country, and a desire to satisfy the Administration which took native interests firmly into account when negotiating the Bougainville Agreement.

To increase substantially the opportunities Aborigines have for employment in the mining industry, Government action seems necessary. The granting of land rights to Aborigines seems particularly relevant in this connection since with land rights Aborigines can themselves negotiate the terms under which mining is allowed to proceed. This gives them an opportunity to achieve desired employment goals by specifying appropriate standards in the mining agreements. Under the Aboriginal Land Rights (NT) Act 1976 a number of such agreements have already in fact been negotiated. The earlier Ranger and Nabarlek Agreements contained fairly general conditions concerning employment and training and partly as a consequence have not been very effective (Standing Committee, 1982). The Pan-continental Agreement, concerning mining at Jabiluka, is, however, more specific in its requirements. Aboriginal employment, for example, is targeted to rise from 10 after one year to 250 after 30 years and specified numbers are to receve apprenticeship training and tertiary education assistance. Special recruiting procedures are also to apply with company officials required to visit designated Aboriginal communities a certain number of times each year (Pan-continental Mining - Northern Land Council Agreement June 1982). With experience and better negotiating skills still more effective agreements may be negotiated in the future.

In States other than South Australia, Aborigines have not been granted secure freehold title to reserves and other lands. Implementation of land rights legislation on a national basis would, aside from any other advantages it would have for Aboriginal people, be likely to enhance their long term employment opportunities in the mining industry. Fear of antagonising the States has, however, dissuaded the Commonwealth from implementing such a policy despite the clear mandate given to it by the Referendum in 1967 and its firm commitment to the land rights principle.

Whether or not a national land rights policy is implemented, it is unlikely that mining will provide sufficient opportunities for employment either directly, or indirectly through projects financed from royalties, to alleviate greatly the chronic unemployment problems existing in many remote Aboriginal

communities. To enhance prospects of employment, substantially increased Government funding for economic development and community assistance projects such as the Commonwealth's Community Development Employment Projects scheme will be needed.

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TWO NEW TRAINING INITIATIVES

WITHIN THE NTPS RELATING TO ABORIGINALS

A.K. SCOTT

This paper deals with new training initiatives which are under consideration within the NTPS relating to Aboriginals. The two initiatives: an Aboriginal Public Service work-based program, and a cross culture communication program, are being developed and introduced out of the Office of the Public Service Commissioner.

However, before going into an account of purpose and objective of these two new initiatives, it is important that this conference appreciate there are many training and development activities relating to Aboriginals already happening on a day by day basis in many NTPS Departments and Organisations. To name a few, the Office of Aboriginal Liaison, which is a part of the Chief Minister's Office, is involved in determining policy and co-ordination of Aboriginal matters. Officers from Aboriginal liaison are active 'in the field' and the Office of Aboriginal Liaison plays a critical role in developing and advising Government and Departments on Aboriginal matters and strategies.

Other Departments which are active in the area of Aboriginal training and advancement are: Education, Health, and Police to name a few. For example, the Education Department, each year, provides a two week induction program for new teachers which includes an understanding of Aboriginal culture/affairs. The induction program is co-ordinated by the Staff Development Section of the Professional Services Branch and the Department has produced a number of excellent publications on Aboriginal affairs as reference sources for teachers.

The Health Department is involved in a number of Aboriginal training programs, and through the Institute of Aboriginal Health in Katherine, the Health Department is providing trans-cultural orientation programs to medical staff. This program includes an induction program for new staff and in-service programs for existing staff.

A significant part of the Police Recruit induction program, some 120 hours, is devoted to Aboriginal matters. The program involves a wide range of guest speakers from various agencies including Aboriginals. The Police also conduct from time to time, special in-service courses and seminars.

These examples are cited to illustrate that in respect to the NTPS there is considerable activity in respect to Aboriginal cross-cultural training and development. Accordingly, within this context, the two new training initiatives discussed in this paper have as an over-riding objective the enhancement and improvement of training activities now in place and to pick up those areas where training should be commenced or strengthened.

The present level of Aboriginal cross-cultural training is to a large extent influenced by the NT Government objective of having a 20 per cent Aboriginal participation rate in the NTPS by 1990. Currently, based on Commonwealth identification criteria, the participation rate for Aboriginals in the NTPS as at February 1983, is 10.5 per cent. The initiatives of an Aboriginal work-based development program and a cross cultural program are important because the outcome of these two programs will assist in ensuring there is a sensitive and planned integration of Aboriginals into the NTPS. Furthermore, and importantly, the two initiatives will provide a transition mechanism of mutual understanding and acceptance as we continue to move towards the objective of 20 per cent Aboriginal participation rate by 1990.

The significance of a 10.5 per cent actual and a 20 per cent target participation rate is readily appreciated when a comparison is made with Commonwealth and State figures; as the following table shows.

TABLE 1

Comparative Participation Rate
Of Aboriginals in the NTPS
with other States

	Participation % Rate	No In Employ
N.S.W.	1.6	655
Victoria	Ø.12	9
Australian Public Service	Ø.47	7Ø9
N.T.	1Ø.5	1137
S.A.	Ø.3	41
Queensland, W.A. & Tas.	These States have advised that no statistics are kept on Aboriginal participation rates.	

(Figures as at February 1983)

The table demonstrates the effect of a positive program of recruitment of Aboriginals into the NTPS and the obvious success of the program in comparison with other States and the Commonwealth. To project to the year 1990, using the present level of NTPS employment level of 10755, a 20 per cent Aboriginal participation rate is equivalent to 2150 positions.

It is not an unreasonable conclusion to draw from the data presented in this table that the NT is in a unique position in respect to the policies being followed in the employment and advancement of Aboriginals.

Against this general scenerio, details of Aboriginal work-based development programs and the cross cultural program initiatives can be considered.

Aboriginal Work Based development program

This is a program designed to allow Aboriginal Public Servants to up-grade the skill and basic level of education in order to improve the prospects for promotion and advancement within the Service.

Having set a target of 20 per cent Aboriginal participation rate by 1990 and in 1983 having reached an actual participation rate of 10.5 per cent Aboriginal Public Servants, consideration within the Public Service by necessity is now focusing on issues such as entry level and career advancement prospects for Aboriginals within the Service. Table 2 compares the number of Aboriginals employed within the NTPS as at 31 May 1981 and 28 February 1983.

TABLE 2

Aboriginals employed by NTPS by departments

Department	28.2.83 M Aboriginal	28.2.83 F Aboriginal	28.2.83 Total	Total Dept. Strength	Aboriginal % of Strength	31.5.81 M Aboriginal	31.5.81 F Aboriginal	31.5.81 Total
Legislative Ass.	-	-	-	30	-	1	1	2
Lands	28	-	28	343	8.1	22	3	25
Transport & Works	140	-	140	2174	6.0	54	18	72
Health	57	192	249	2915	8.4	55	197	252
Mines and Energy	1	2	3	291	1.0	1	2	3
Primary Prod'tion	9	-	9	390	2.3	10	6	16
Port Authority	9	-	9	81	11.1	11	-	11
Education	108	321	429	1298	33.0	91	271	362
Housing	1	2	3	247	1.2	0	1	1
Comm'ty Dev't	29	44	73	658	11.0	29	54	83
Fire Brigade	30	-	30	127	23.0	-	-	-
Police	66	6	72	774	9.3	63	6	69
Conservation Commission	56	4	60	428	14.0	38	2	40
Treasury	1	3	4	145	2.7	1	1	2
Museums & Art Galleries	-	1	1	51	1.9	-	-	-
Vocational Training Commission	1	1	2	31	6.4	-	-	-
Law	3	6	9	293	3.0	1	5	6
Tourism	-	1	1	61	1.6	-	-	-
PSCO	-	4	4	186	2.1	-	-	-
Chief Minister's	4	7	11	224	4.9	7	6	13
NTTS Commissioner's Office	-	-	-	8	-	-	-	-
Sub Total	543	594	1137			384	573	957
Total NTPS (Excluding Authorities)				10755				11176

In general terms, table 2 shows that during that period, Departments such as Transport and Works, Health, Education, Police, Fire Brigade, Community Development and Conservation Commission are the employing Departments of large numbers of Aboriginals. The table shows in 1981 the participation rate to be 8.3 per cent of which 40.13 per cent were male and 59.87 per cent were female. However, by early 1983 the participation rate had increased to 10.5 per cent (47.75 per cent male, 52.25 per cent female).

Given the increasing number of Aboriginals in the NTPS, the importance of an Aboriginal work-based development program in providing the opportunity for career advancement cannot be understated, particularly when consideration is given to career entry level and career mobility prospects.

Generally, speaking, the majority of Aboriginals enter the NTPS in the lower levels of the Service, and evidence has shown that career advancement to the higher levels is slow and limited. The following profile is a typical example of Aboriginal entry and promotion within the Service:-

During the period January 1978 to December 1982, Department 'A' employed 20 Aboriginals, of whom only 3 had received promotions to a higher level. Of the three who received promotion, 2 were promoted after 5 years service, and 1 after 4 years service. The 20 Aboriginal employees have a mean length of service of 2.7 years within a range of 1 to 6 years. The entry level for the 20 shows: 1 employed at the A8 level, 1 employed at the A7 level, 3 employed at the A5 level, 4 employed at the A4 level. Eleven were employed at the A1 or its equivalent level.

By way of explanation for those who might not be familiar with NTPS terms, the Service is a career public service with advancement based on merit, experience and education. The positions within the Service are structured so that they run from level A1 to A9, with Executive level positions from E1 to E6. Advancement through the structure is by way of ascending through the scale by bidding for positions which are advertised, (with appeal rights), within the Service.

Whilst there is merit in pursuing a positive program of recruitment of Aboriginals into the NTPS, nevertheless this would be a futile exercise if there was limited or no prospect for real career growth once entry had been achieved. Furthermore, as the Service draws closer to the 20 per cent participation rate target, career advancement deficiencies will be exacerbated. Accordingly, the Public Service Commissioner came to the view that a work-based development program should be offered to enable Aboriginals to upgrade their basic education skills, and thereby putting them in a position to apply with equality with other Public Servants for promotion. Considerable thought and planning went into the proposal and it has been proposed that a work-based development program should be commenced from 1 January 1984 catering for 16-20 students on the following basis:

- Education programs would need to be individually tailored around participant requirements and Departmental needs.

- Participants will have the opportunity to identify their career path and be aware of the skills that will be required of them to achieve their preferred career path.

- There will be a combination of individual learning programs, group activities, and small residential programs in order to provide a well-rounded learning experience.

- Specific learning contracts for each participant drawn up in conjunction with their employer, thereby ensuring at the end of the program measurable results.

- The work-based development program will be open to all Northern Territory Public Service employees of Aboriginal descent. Applications will be accepted on a voluntary basis only.

- Departments will be expected to release participants without any reduction in normal salary or conditions.

- Participants will be required to spend 10 hours per week in direct training/educational activities. Importantly, participants will be required to have a program of study in their own time. Additionally, the program will include group activities in order to facilitate a sense of group awareness and to provide a support network.

- The program will use a combination of education materials and teaching methods in order to provide a well-rounded high-quality learning experience directed at individual needs.

To develop and implement the proposal a Working Party was established. In order to obtain Aboriginal support, involvement and commitment to the program, the twelve most senior Aboriginal Public Servants were invited to comment and give direction and input to the Working Party. The twelve Aboriginals elected three of their number to join the Working Party, resulting in the Working Party being 7 in number.

The Aboriginal work-based development program is now at the stage where two training officers at A9 level ($28213 - $29329) have after extensive advertising inside and outside the Service, been appointed, and both are Aboriginal. The two training officers will take up duties in January 1984 and begin the necessary work of curriculum design etc. Whilst there still remains considerable planning and development to be completed, it is planned for the first Aboriginal Public Servants to come onto the program in the first quarter of 1984. The people associated with the Aboriginal work-based development program are confident that it will make a positive and valuable contribution to the career development and advancement of NT Aboriginal Public Servants. Perhaps the fitting conclusion to this part of the paper might well be that if NARU intend holding a similar conference sometime in 1984-85, then the NTPS could present a progress report paper on this topic.

Cross cultural Communication Program

The objective for a cross cultural program can be best expressed by taking a quote from that ubiquitous book a 'Hitchhikers Guide to The Galaxy' which sets out to offer information on life forms and their habits throughout the Galaxy for those space travellers 'keen to make sense of life in an infinitely complex and confusing universe'.

The need for a cross-cultural program in the NT was recognised in 1981 when the Conference of Aboriginal Organisations passed two resolutions, both of which were designed to increase information, knowledge and understanding on Aboriginal matters, viz

> This conference requests that all Northern Territory and Federal Government Departments make available funds to allow free access for all staff to suitable cross cultural orientation programs.
>
> This Conference requests that the NT Government liaise with DAA to provide funds for the establishment of a cross cultural program in Darwin similar to that currently run by the Institute of Aboriginal Development in Alice Springs.

In order to progress this initiative of a cross cultural program for the NTPS from a sound base, the Public Service Commissioner decided to allocate, on a full time basis, a senior officer from his staff, and support assistance was provided by the formation of a working party. The Terms of Reference for the working party was to develop and report on the feasibility of introducing a cross-cultural program within the NTPS. The working party was to complete its deliberations and report back to the Public Service Commissioner within a three

month period (i.e. by 30th November 1983). The decision was taken that the Project Officer's first priority should be to undertake a survey throughout the Service to establish:

1. The extent to which basic Aboriginal orientation training, specialised training and supervisor training existed in Departments throughout the NTPS.

2. To identify whether training programs were under development or seen as needing development to respond to Aboriginal issues.

3. The resources currently available within Departments to provide training on Aboriginal issues.

Importantly the survey was designed to provide to the working party information/data which would facilitate discussion and further exploration of the concept and need for an Aboriginal cross-cultural training program.

The key results of the survey were:

1. Out of the 28 departments and authorities surveyed, support for the concept of an Aboriginal orientation program was very strong.

2. Within the NTPS there are six departments which can be defined as having significant contact with Aboriginal people. These departments are: Health, Education, Community Development, Transport and Works, Conservation Commission and Police.

3. There exists a need for departments, and the Public Service Commissioner's Office, to maintain up to date statistical and personnel information on Aboriginal Public Servants.

4. There is little general orientation training being conducted on Aboriginal issues for new or existing staff.

5. There is a strong preference for general orientation training to be the responsibility and action of a central authority.

6. Additionally, for those Departments which can be identified as having a high contact and involvement with Aboriginals, a case exists for further development of specialised programs.

7. Througout the Service the need was identified for the development and implementation of specialised training programs for supervisors of Aboriginals.

8. Likewise, a need was identified for Senior Management Seminars to be implemented to discuss and clarify Aboriginal issues.

The survey was also designed to provide to the working party an audit of training resources and activity inside and outside the Service being directed towards Aboriginal matters. The survey revealed that there is within the NT Community a considerable amount of activity in the areas of cross-cultural training. Of particular interest to the working party was the activity being undertaken by Nungalinya College, in Darwin, and the Institute for Aboriginal Development in Alice Springs. These two bodies appeared to the working party as being the most promising for their possible involvement in any NTPS Aboriginal cross-cultural program.

Accordingly, it is appropriate to briefly account for the activities undertaken by these two insitutions.

Nungalinya College offers a wide range of courses which are directly relevant for people working with Aboriginals. Nungalinya College has indicated in 1984

prospectus it has scheduled the following courses, which have possibility of being of interest to the NTPS.

(i) Living in an Aboriginal Community

This program is a two week residential cultural orientation course for people working or living in Aboriginal communities. The course is conducted entirely by Aboriginal staff. The course has a strong emphasis on Aboriginal culture and includes a wide range of relevant subject matter.

(ii) Cross Cultural Community Work

This is an orientation course particularly designed for those working in a face to face situation with Aboriginals and encountering Aborignals in their day to day work. The course material includes aspects of Aboriginal culture such as community value and expectations, social analysis and problems, resources and services to Aboriginal communities.

(iii) Working Cross Culturally

A course specifically designed for social workers, advisors, etc. This program is not focused on the complexities of living in an Aboriginal community, but more on the day to day issues likely to arise in daily encounters with Aboriginal people.

The Institute for Aboriginal Development has as one of its stated objectives to promote cross cultural understanding through specific programs for non-Aboriginals.

The IAD conducts a cross cultural program of two weeks duration and involves a consideration of the social setting in which Aboriginals and Europeans live in Central Australia. The program also explores Aboriginal organisations, their role and function, and in particular, Aboriginal organisations in Central Australia. An interesting and important component of the course is a two day visit by participants to the Apatula Aboriginal Community at Finke.

The Institute for Aboriginal Development conducts a follow-up workshop six months after the completion of the basic orientation course. The workshop provides the opportunity for reflection and expression of feelings and thoughts. Extensive use is made in the workshop situation, of Aboriginal speakers, and the format is based on high audience participation.

In assessing the Nungalinya and IAD programs, the working party came to the conclusion that both programs are ideally suited in format and content for Public Servants. Both institutions have indicated an initial interest and desire to work towards the development of programs that could be of use to the NTPS and there is a stated preparedness to develop special programs relating to the particular needs and requirements of the NTPS.

The Working party report to the Public Service Commissioner recommended that in developing a cross-cultural program for the NTPS there should be an effort taken to involve and utilise the expertise already in place at Nungalinya and the Institute of Aboriginal Development.

In a paper such as this it is not possible to account for all those organisations which are active in the area of Aboriginal cross cultural training. However, what is important to record is that the survey did identify that within the NT and outside the NTPS there is considerable effort and many resources being directed towards the development of constructive and worthwhile cross cultural training programs.

To a large extent the challenge now before the NTPS is one of how to marshall effectively the resources which are available, in a planned and constructive way, in order to satisfy the diverse needs of the Service. Also the response

has to be sufficiently flexible to satisfy the changes which will inevitably take place within the next 10 years in the Territory and certainly within the NTPS.

The working party did, through its survey in quantitative terms, establish that a need does exist for an Aboriginal cross cultural program, and for specialised programs to commence for Public Servants working closely with Aboriginals. Also, further consideration needs to be given as to who should carry the responsibility for the development and carriage of such programs. The most attractive proposition for the initial stage of development of any program should be that it be co-ordinated from a central authority.

Whilst it can be argued that Departmental management should be responsible for development and carriage of training and development programs, it is difficult to ignore the results of the survey which indicated an overwhelming desire that the carriage of the program should be by a central authority. However, if this action is taken it will be critical for the success of the program to ensure there is Department identification and ownership of the program.

Conclusion

1984 offers for NTPS the prospect of having two new and challenging initiatives move from the planning, research and conceptual phase into the development and implementation stage. Therefore it does seem that the most telling point from the 'Hitchhikers Guide to the Galaxy' is the admonition 'DON'T PANIC' should also apply to the NTPS in respect to the issues canvassed in this paper.

STUDY ON DEPARTURES FROM THE NORTHERN TERRITORY PUBLIC SERVICE

K.S. POPE

Introduction

An important aspect of human resource management within any organisation is to understand the dynamics which impact on and affect the people within it. It is also necessary to regularly review and assess personnel policies and practices, and their effectiveness. An important function of the Northern Territory Public Service Commissioner's Office is to review the policies and conditions of employment, and to monitor and review current personnel practices. In the latter instance, there can be many indicators which, if reviewed dispassionately, will show whether a particular personnel policy needs review or amendment. Some of these indicators are absenteeism, number of grievances arising, number of employees seeking transfers, causes of industrial action, or departures from the Service by voluntary resignation.

Earlier this year the Public Service Commissioner's Office became aware of a rising rate of departures from the Service which in general terms was running at an estimated level of 25 per cent to 30 per cent per annum. It was therefore considered appropriate that an in-depth study and analysis be undertaken to identify why people were leaving the Service, to gain a clear understanding of the characteristics of departures, and to draw conclusions regarding remedial action to reduce resignations.

It was decided to undertake a study of this kind on the basis of a 'project', and a project officer was assigned on a full-time basis. The project officer was selected from outside the Service as a person experienced in industrial relations and personnel work. This action was thought to favour the chances of an unbiased and impartial investigation being undertaken.

The study project was broken down into three aspects:

1. a survey and analysis of data relating to human resource losses throughout the Service;

2. examination of procedures for the briefing of prospective employees either at interview or provided in writing to applicants so as to assess the validity, currency and effectiveness of information provided;

3. an analysis of current procedures (if any) for the induction of personnel into Departments and authorities.

The survey collected a large amount of information, which at this stage still has to be subject to in-depth statistical analysis. Therefore, the data presented in this paper must be accepted on the basis that at the time of preparing the paper a lot more work remains to be done.

Methodology

The person undertaking the project was given free access to all information within the various Departments concerning human resource loss, to recruiting procedure and to information given to recruits at the time of interview and entry.

Each Department was visited by the project officer. Personnel Department records were analysed and data was obtained on losses of staff by resignation only. Expected or engineered losses due to retirement, transfer, cessation of limited tenure contract were not included in the survey.

The data collected was divided into the broad categories of recruits to the Service from local sources and interstate sources, and classified in the following way:

- employment category;
- pay levels;
- age groups;
- sex;
- marital status;
- employment duration;
- month of departure; and
- reasons for resignation.

Before commencing the data collection phase, specific terms of reference for the project were drawn, and Departmental managers were called together for discussion of the Terms of Reference. Agreement was reached on confidentiality and on how the results would be presented in published form. Thus by this step, Departmental managers became involved in the study and acquired a commitment to it reaching a conclusion. All of the major Departments, some twelve in all, were involved in the project.

Finally, it was agreed that the final report would be presented to the Northern Territory Public Service Co-Ordination Commitee which is the mechanism whereby Departmental Heads discuss and review policy matters affecting the Service. The first report has already been submitted to the Northern Territory Public Service Co-Ordination Committee, and it has been agreed that as many of the key findings of the report as possible are to be implemented through the Service.

Study Findings: Locally Recruited Personnel

Personnel files of 1709 exits recurited locally and 277 exits recruited interstate were examined. In regards to locally recruited losses the following key issues identified are set out in the following (a) - (h).

(a) Employment category

Highest losses were incurred in the general clerical group at 38 per cent followed by the labour (unskilled) group at 15 per cent. Third in line, at 12 per cent were nurses. Furthermore, nurses contributed to 53 per cent (205 out of 350) of Department of Health 'local' losses.

The unskilled group consisted of drivers, cleaners, laundrymen, etc.

A wide range of disciplines was represented in professional and technical losses, e.g. engineers, town planners, legal officers, medical and dental practitioners.

The statistical summary of departures by the employment categories used in the project is as follows:

TABLE 1

Analysis by employment category (locally recruited)

Employment Categories	No. Departing	% of Departures
Professional/technical	184	11
Labour	258	15
Clerical	647	38
Keyboard	101	6
Executive	34	2
Trades	116	7
Nurses	205	12
Teaching assistants	52	3
Other	112	6
Total	1709	100

(b) Pay Levels

The following summary shows that 74 per cent (1270) of resignations were in the lower pay levels, with 36 per cent (610) in the under $10,000 per year range and 38 per cent (660) within the $10,000-$13,000 per year range.

TABLE 2

Analysis by salary level (locally recruited)

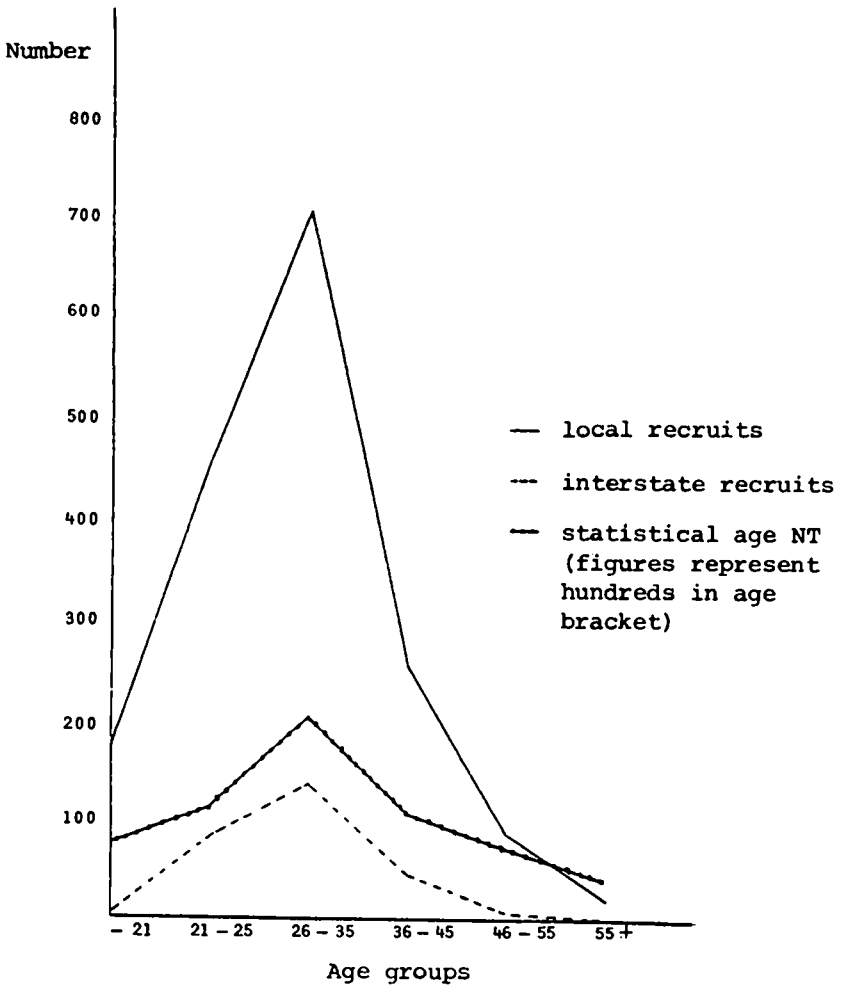
Salary Ranges	No. Departing	% of Departures
Up to $10,000	610	36
$10,000 - 13,000	660	38
$13,001 - 16,000	217	13
$16,001 - 20,000	121	7
$20,001 and above	101	6
Total	1709	100

(c) Age Group

An examination of the distribution of losses by age group, compared with the age distribution within the Northern Territory according to the 1981 census revealed a proportionate similarity which is readily seen by the following graph:

Graph 1

Distribution of Departures across Age Groups



(d) Sex

Sixty-two per cent (1Ø55) of losses were of female personnel. This percentage is influenced by the predominance of females in the lower range clerical grades e.g. keyboard group and nursing profession. In June 1982 the ratio of females to males in the Northern Territory Public Service was 46 per cent (6,8ØØ) indicating that losses of female personnel are significant.

(e) Marital Status

Departures of married personnel and single personnel were 55 per cent (937) and 45 per cent (772) respectively. This appears to explode the myth that married personnel are more stable than single employees. This may have important cost ramifications for the Service as a whole and also for members of ancillary Services such as Housing Commission.

(f) Employment Duration

Service of less than one year is prevalent despite signatures from applicants advising their preparedness to give at least one year of service. Losses of personnel by employment duration were:

TABLE 3

Analysis by Length of Service (locally recruited)

Duration	No. Departing	% of Departures
less than 1 year	557	33
1 - 3 years	710	42
3 - 5 years	210	12
5 - 10 years	159	9
more than 10 years	73	4
Total	1709	100

(g) Month of Departure

Data relating to month of departure was obtained in order to assess whether there was any appreciable difference between resignation rates in the 'wet' and 'dry' seasons. Samples taken revealed that 52 per cent of resignations occurred in the 'wet' season and 48 per cent occurred in the 'dry' season. The marginally higher resignation rate in the 'wet' season was primarily evident during January to March when the rains had commenced rather than during the 'build-up' period October to December when high humidity levels prevail. This tends to indicate that the 'Northern region' may have outgrown seasonal influences at least within the scope of occupations offered within the Northern Territory Public Service.

Numbers of departures by month was:

J	F	M	A	M	J	J	A	S	O	N	D
165	153	161	113	132	132	162	149	137	148	138	119

(h) Reasons for Resignations

The most disturbing factors which emerged were that 48 per cent (814) of resignations submitted contained no reason or explanation, even where it was sought, and that "personal reasons" were as high (10 per cent).

In summary, the reasons for resignation were given as:

TABLE 4

Analysis of Reasons for Resignation (locally recruited)

Reasons	No. Resigned	% of Resignations
Travel	52	3
Personal	164	10
Supervisor conflict	30	2
Advancement	81	5
Job dissatisfaction	35	2
Health - employee	57	3
Health - family	36	2
Education - employee	37	2
Spouse transferred	84	5
Departing N.T.	148	8
Ex maternity leave	80	5
Other reasons	91	5
No reason	814	48
Total	1709	100

Study Findings: Personnel recruited from interstate

In regard to interstate recruited losses i.e. 277 departures, the study revealed the following matters of interest, reported in section (i) - (p) below.

(i) Employment Category

The 277 resignations submitted by personnel recruited from beyond the borders of the Northern Territory revealed 124 professional/technical losses (45 per cent) and 111 nurse losses (40 per cent).

TABLE 5

Analysis by employment category (externally recruited)

Employment Categories	No. Departing	% of Departures
Professional/Technical	124	45
Labour	0	0
Clerical	4	1
Keyboard	0	0
Executive	21	8
Trades	6	2
Nurses	111	40
Teachers Assistants	0	0
Other	11	4
Total	277	100

(j) Pay Levels

Losses by pay level were:

TABLE 6

Analysis of Salary Level (externally recruited)

Salary Ranges	No. Departing	% of Departures
Up to $10,000	41	15
$10,001 - 13,000	98	35
$13,001 - 16,000	30	11
$16,001 - 20,000	34	12
$20,001 and above	74	27
Total	277	100

The relatively higher proportion (39 per cent) of departures from the higher salary levels ($16,001 upwards) compared with 13 per cent for locally recruited personnel in the same salary market (see Table 2), is of concern because of the much higher costs involved in recruitment of external candidates.

(k) Age Group

Age groups follow the general demographic pattern of groups by age taken in the 1981 census but with a more pronounced indication in the 26-35 years age group.

(l) Sex

Losses included 147 males and 130 females. If the data relating to nurses is extracted, losses throughout other Departments indicate a predominance of male resignations at 147 males to 41 females.

(m) Marital Status

A total of 117 married personnel and 160 single personnel resigned. Deducting nurses from the total as 'common to one Department' results in a refined total of 117 married and 60 single resignations from other Departments. Estimates of average removal costs on recruitment for married personnel vary from $6,500 to $8,000. If an average of $7,000 per removal is applied to the 117 married personnel who resigned an expenditure of over 3/4 million dollars is a conservative estimate.

(n) Employment Duration

Employment duration is set out in Table 7 below. Service of less than one year (34 per cent) is apparent in the same as for locally recruited staff (33 per cent see Table 3).

TABLE 7

Analysis of length of Service (externally recruited)

Duration	No. Departing	% of Departures
Less than one year	94	34
1 to 3 years	156	56
3 to 5 years	19	7
5 to 10 years	6	2
More than 10 years	2	1
Total	277	100

(o) Month of Departure

Resignations during the dry season were 45 per cent (125) and during the wet season 55 per cent (152). The 10% increase during the wet season represents a difference of 27 personnel resigning and this marginal increase was spread fairly evenly through the wet season, as indicated below:

J	F	M	A	M	J	J	A	S	O	N	D
27	26	18	17	18	22	26	17	25	31	29	21

(p) Reasons for Resignation

A wide range of reasons was given at time of departure as for locally recruited personnel. (The percentage of 'no reasons given' category was far less (27 per cent) than for local recruits (48 per cent), but 13 per cent (37) cited personal reasons for resignation.) Resignations of interstate recruited personnel may not appear significant when taken in isolation by Departments. However, service-wide the costs are significant financially where only a limited return has been obtained in the form of service to the Northern Territory community.

TABLE 8

Analysis of Reasons for Resignation (externally recruited)

Reasons for Resignation	No. Departing	% of Departures
Travel	16	6
Personal reasons	37	13
Supervisor conflict	3	1
Advancement	19	7
Job dissatisfaction	16	6
Health - employee	6	2
Health - family	5	2
Education - employee	22	8
Spouse transferred	4	2
Departing N.T.	52	19
Ex maternity leave	3	1
Other reasons	17	5
No reason	75	27
Wages/salaries	2	1
TOTAL	277	100

Conclusions Drawn

Care must be taken in drawing conclusions from any such survey which is partly concerned with the attitudes of persons towards their environment and their working life, and their motivations. Nevertheless, an attempt is made in this section to distinguish matters of significance in the sphere of personnel work. No attempt is made, however, to assess this matter in statistical terms.

The study revealed that there is a relationship between the basis upon which an offer of employment is accepted and the later ability of families or individuals to adapt to a new life style in the Northern Territory. When professional specialist vacancies exist, for example, recruitment for those vacancies is predicated upon gaining the best qualified employees. No formal recognition of the potential effect on the families of the successful applicants of moving to the Territory was evident at either the interview stage or on arrival in the Territory. There can be no doubt that successful applicants with families need to be fully briefed not only on the duties of their employment and the conditions of service appertaining, but also on the implications of acceptance upon their domestic situation. It is possible that resignations through adverse family/domestic influences could be reduced if the applicant were given a sounder basis of fact on which to base his decision to accept appointment.

The examination of procedures used for briefing prospective employees, either at interview or in writing, revealed a wide variation in practice. Within the Northern Territory Public Service there is substantial delegation of executive authority to Departments, and recruitment in particular is the responsibility of each separate Department. No service-wide procedure or format exists for the provisions of advice on conditions of service. This was found to be of great concern to interstate recruits who found what they alleged to be great disparity between their 'expectations' built up at interview, and what in fact they found when they arrived in the Territory to take up appointment. While some allowance must be made for the 'rationalisation' process of reasons for leaving which persons resigning must go through, so that dissatisfaction with the environment may be given as a reason to cloak personal inadequacies, it is nevertheless disturbing that genuine expectations were not met.

In addition, there was little evidence that spouses were included in the information dissemination process, either on the position or on the conditions of living in the Northern Territory. This is an important omission having regard to the importance of maintaining domestic stability.

A review of exit interviews of interstate recruits revealed that at the time of interview it would have been prudent to provide, in some standardised format concerning specific employment, conditions normally set out in the detail of Awards, Regulations and General Orders, etc. A list of the major items is set out in Appendix A below. This matter is being taken up by the Working Party referred to earlier. As regards living conditions, there appears to be a gap between what is told at interviews about the Northern Territory as a place to live and the expectation which is built up in the applicant's mind. Exit interviews referred to the problems experienced in housing, availability of leisure pursuits, specialist medical facilities and the remoteness and distance factors inherent in the Northern Territory. There exists a need for a non-emotional factual information kit to be compiled covering all essential life style information which prospective applicants need to know. Included in such a kit should be a check list so that proper discussion and clarification of issues can take place during interview.

Whilst the study was able to make great use of information held in Departmental personnel records, the study also showed a wide varation across the Service on conducting appropriate exit interviews to establish reasons for departure. The importance of obtaining such information has become apparent to many Departmental personnel officers who appreciate that they have not fully understood the extent and impact of departures.

Finally, the study examined the current procedure and practices followed by Depatments for the induction of new personnel into Departments and authorities of the Northern Territory Public Service. The importance of appropriate induction programmes has long been recognised as a way of securing constructive attitudes and ensuring positive motivation and commitment. Within the Northern Territory Public Service, the Departments and authorities are responsible for conducting their own induction programmes. The study revealed that in those Departments with established training and development sections, induction programmes were conducted on an as needed basis. Typically, they provided general information on condition of employment and information relevant to the Department. The study has revealed that many of the programmes needed revision and amendment to meet today's situation.

A simplistic view of induction programmes is that they provide the basis of information on conditions of service upon which the individual can subsequently build. An effective induction activity designed to impact on the problem of departures must be directed, however, towards the assimilation of the new employee into the Service and his environment, and must constructively assist the employee and his family in taking up a new life style. It is not unreasonable to assume that until new friends, and social contacts are established, the applicant and family must remain a potential departure hazard.

APPENDIX A

List of conditions proposed as standard information.

- The ability of recruits to transfer rights from other State Government Authorities.
- The length of probationary periods of service, including extension or annulment thereof.
- Medical fitness requirements, for both the Service and superannuation purposes.
- District allowances applicable to locality of employment.
- Availability of Zone A taxation allowances.
- Disturbance allowance where removal costs are borne by the Service.
- Recreation leave credits applicable to the locality of employment, and the date upon which first credits fall due.
- Sick leave credits; when first accrued and under what circumstances medical certificates are to be submitted.
- Fares for employee and dependents each two years, detailing the definition of a dependent and the utilization of air fare entitlement (and its limit) against overseas travel or use of own conveyance on interstate travel.
- Superannuation - How, when and how much is deducted from salary, and the choice of additional voluntary contributions; when adjustments to contributions occur.
- Entitlements on removal - prior approval required for freighting of vehicle - vehicle allowance based upon most direct route - baggage allowances - travelling allowance detailing definition of the term "reasonable costs" for accommodation and meals - emphasis on the employee's contribution towards accommodation costs after arrival at destination - employee's responsibility to secure private accommodation.
- Rental assistance on obtaining suitable private accommodation stressing limits.
- Contact name and telephone number for queries (to be incorporated by relevant Department/Authority).

THE ROLE OF THE NT DEPARTMENT OF THE CHIEF MINISTER SINCE SELF-GOVERNMENT *

WILL SANDERS

Introduction

On 1 July 1978 the Northern Territory (NT) became Australia's first and only self-governing territory. In institutional terms this was a watershed in NT political history. A political system based on minor representation to Canberra was transformed into one focussed much more immediately on Darwin. For students of Australian politics these developments in the NT present a challenging field for inquiry. The experiences of this new polity need to be compared with our established and developing understanding of the concerns and operations of Australian governments at the state level. Can we analyse them in similar terms or is the NT still ineradicably different? This paper examines the role of the Department of the Chief Minister in the political and economic development of the NT since self-government and relates this to recent discussion of premier's departments in the states.

Premier's Departments

The metamorphosis of premier's departments as central organisations within the administrative apparatus of state governments has been a major development in Australian government administration over the last decade. Transformation in the individual states has now been well documented (Coghill and Jurjevic 1983, Smith 1982, Turbayne 1982, Warhurst 1982a, Woodward 1982). Although change has been far from uniform, its generality has prompted discussion along two broadly complementary paths: general speculation on the causes of growth of the departments and more detailed analysis of the expanded range of functions they have undertaken (Painter 1982, Sharman and Stuart 1982). In this examination of the role of the NT Department of the Chief Minister I will follow these paths in turn.

Growth

The NT Department of the Chief Minister was created at the time of self-government. It drew staff from the transitional Department of the Chief Secretary (which had been closely involved in the legal and administrative processes of establishing self-government) and from some small sections of the Commonwealth Department of the Northern Territory (concerned primarily with economic development). This truncated departmental pedigree is in marked contrast to those of the premier's departments which, except in the case of SA, can be traced to small units, established in the early part of this century, providing basic secretarial and administrative assistance to the premiers, executive councils and cabinets. The NT department was formed at a time when its counterparts in the states had already been considerably transformed by the addition of new functions. It is perhaps not surprising then that the NT department has, since its inception, had a number of 'offices' covering a considerable range of responsibilities (See Table 1).

TABLE 1

Named Offices of the NT Department of the Chief Minister 1978-85 and Categorisation Following Sharman and Stuart (1982)

Executive Group (1978-)	
Office of Policy and Planning (1978-)	Policy Coordination
Office of the Co-ordinator General (1978-)	Policy Coordination
Office of Special Development Projects (1978-1982 when subsumed in OCG)	Industrial Policy
Office of Inter-government Relations, Parliamentary Liaison and Legislation (1978-title expanded 1982)	Policy Coordination/ Parliamentary Services
Office of Information (1978)/NT Information Service (1979-1983)	Publicity
Office of Industrial Relations (1978-)	
Office of Aboriginal Liaison (1978-)	Social Policy
Office of the Administrator (1978-)	Formal
Office of Parliamentary Counsel (1982-)	Parliamentary Services
Electoral Office (1982-)	Parliamentary Services
Office of Operations comprising -	
Administration Unit (1978-)	Miscellaneous Services
Library Unit (1978-)	Miscellaneous Services
Ceremonial and Hospitality Unit (1978-)	Formal
Oral History Unit (1979-)	Culture

(Note: Ministerial and members staff have also been listed in the department for reporting and appropriation purposes at various times. As these staff are only considered part of the department for routine administrative purposes and have no substantive connection with the Department, they have been ommitted here and in discussion throughout this paper.)

There have, of course, been changes - upgradings, downgradings and redirection of offices, the kind of manoeuvring of administrative apparatus with which observers of the relations between governments and their administrations are so familiar. There have also been additions - the Electoral Office and the Office of Parliamentary Counsel are recent examples. But there has not been any major metamorphosis from small secretarial unit to high profile central department. The NT Department has always been the latter. Even so, in the five years since self-government, it would appear that the Department of the Chief Minister has increased rather than decreased in importance. Staffing levels of the Department have improved. But as evidence of the department's greater importance this is far from conclusive since NT public service as a whole has grown considerably in the period both by the addition of new functions and real staff increases.

TABLE 2

Staff and Establishment of the NT Department of the Chief Minister

	Staff	Establishment
Dec 78	96	112
June 80	129	120
June 81	145	139
June 82	145	134
June 83	152	140

Source: Annual Reports, Department of the Chief Minister

Causes

One place to begin explanations of the emergence of the new high profile central departments, particularly in case studies, has been with the prominence of particular premiers. State administration and state elections, it is said, have increasingly been focussed on the person, the style and the image of premiers such as Dunstan, Wran and Bjelke-Petersen. Premier's departments have been expanded to give them the administrative backing for which this prominence calls. The argument could be put in much the same terms for NT Chief Minister, Paul Everingham. He established his prominence in Territory politics soon after self-government and, by the 1980 Legislative Assembly election, Darwin Country-Liberal Party voters were voting for their 'voice in the Everingham team' (Jaensch and Loveday eds 1981).

Individual prominence is not the whole story however, and, even where it is important, its consequences for administrative arrangements need to be more specifically demonstrated. Continuities beyond the reigns of particular premiers and across the states suggest that there are more systemic forces at work. Painter (1982) reminds us that 'these departments are one part of an administrative system that is adapting to external pressures in the policy process'. He identifies a number of pressures: changes in state-federal relations with the increase of federal government activity during the early 70s in fields previously the preserve of the states, followed in the late seventies by a degree of federal government withdrawal and fiscal scarcity for the states; state economies experiencing the strains of rapid expansion in some sectors, decline in others and growing levels of unemployment; the rise of movements such as 'environmentalism', 'consumerism' and 'multi-culturalism' which have complicated the agendas of state government. Part of the response to these pressures has been for governments to shuffle old and create new administrative offices. This has affected premier's departments in two ways. First, they have often been repositories for new offices, particularly those dealing with politically salient issues. Second, and perhaps more importantly, they have been

seen as a way of reimposing some sense of government as a whole on this increasingly complex and administratively fragmented political agenda.

To the extent that these pressures and responses are the common experience of the states and the NT they are helpful in explaining the generality of the development of high profile first minister's departments. But pressures have not been equally felt. We might suggest, for example, that the NT's narrowly based, small and public sector dominated economy has been rather differently affected by the developments of the 70s than those of the other states. The NT has certainly shared in the mineral boom and its new, though by national standards still small, tourist industry is expanding rapidly. The decline of manufacturing has probably had little direct effect on the NT, but its established pastoral industry has been struggling. The NT has also, to some extent, been shielded from fiscal scarcity caused by recent federal-state financial relations because of its separate bipartisan agreement with the Commonwealth. The 'isms' of the 70s may also not have complicated the Territory's political agenda in quite the same way as 'down south'. Similarly, with less than 30 statutory authorities and only 10 departments, the NT government is unlikely to suffer from the acute administrative fragmentation and consequent need for central oversight and integration experienced in the large states. Clearly we cannot appropriate the systemic explanations for the development of high profile first minister's departments without qualification. Particularly since it is in the two states with which we might want to compare the NT most closely - WA and Qld - that premier's departments were found to be most underdeveloped (Sharman and Stuart 1982: 55). For such a small political system which has been partly insulated from the pressures faced by governments in the larger central states, the NT appears to have a surprisingly well developed first minister's department. To explain this we need to look to some of the idiosyncratic aspects of NT politics during the early years of self-government.

The NT government after July 1978 was a new government which above all else wanted to project itself as different from the previous Commonwealth administration which, in the eyes of many Territorians, had been distant, unresponsive, uncaring and procedure bound. The Territory government wanted to be seen consulting with the electorate and interests within it and responding to their demands. It wanted to be seen promoting the NT and it needed to promote itself. As a new government, it needed to develop its authority and identity both within the electorate and within the administration it had recently inherited. All this meant change. New tasks had to be undertaken and old ones reshaped. The new cabinet and ministers had to be tied into administrative processes, negotiations with other governments and large corporate interests conducted, better public relations and electorate consultation mechanisms developed and major policy initiatives set in train. As will become evident in the following examination of its functions, in all this the Department of the Chief Minister has had a major role to play. The department's high profile and development can, to some degree, be explained by the extent of change attempted during these early years.

Functions

To enable us to give some analytic order to the array of specific tasks undertaken by the Department of the Chief Minister and to facilitate cross state comparison, we need to consider the systems for classification of functions that others have used in discussing premier's departments. Painter (1982) develops a four celled categorisation system based on distinctions between sectoral or agency work and coordinating or 'whole government' work along one axis and between policy and administrative or operational work along the other. Sharman and Stuart (1982) categorise named sections of premier's departments into nine groupings - formal, policy coordination, administrative appeals and supervision, social policy, industrial policy and trade, culture and recreation, parliamentary services, publicity and miscellaneous services. Neither categorisation provides us with mutually exclusive boxes into which the offices of the NT Department can be placed unambiguously (See Table 1 for a rough application of Sharman and Stuart's groupings to the offices of NT Department). But both help give some order to otherwise jumbled impressions. For example,

both systems poignantly remind us that these are hybrid departments and that not all their work is necessarily either politically salient or worthy of grandiose labels such as 'coordination'. There is a well established practice of using first minister's departments (and their portfolios for that matter) as repositories for administrative units which have a discrete sectoral function or which provide some basic government-wide service, but which have no other convenient departmental home. In the NT there are a number of examples: the Office of the Administrator services the NT equivalent of a state governor; the Electoral Office which, since its establishment in 1980, has been listed both as a separate agency within the chief minister's portfolio and as an office of the Department; the Government Information Centre which until the recent dismantling of the Office of Information/ NT Information Service came within that Office (it is now formally responsible to the Government Printing Office within the Department of Transport and Works); the Oral History Unit; and, to a lesser extent, the Office of Industrial Relations (which has restricted responsibilities in comparison with its counterpart departments in the states because of the absence of any separate Territory level industrial arbitration and conciliation jurisdiction).

But it has been the expanded policy functions and particularly the 'whole government' or coordination ones, rather than this eclectic group of sectoral and generally administrative operational tasks, which account for the recent high profile of first minister's departments. It is to these that we now turn.

Control and Coordination

> Politicians are the ultimate controllers of administrative systems, and one of their chief problems is to maintain and demonstrate the reality of their control. Control in this sense does not mean simply (or primarily) making sure that policies which have been met are faithfully executed. It has also the converse meaning of so holding the reins of office that the decisions of administrators can always (if necessary) be over-ruled or amended. It means also establishing an atmosphere in which administrators will continually be aware of political guidelines and constraints (Self 1977: 161).

For all governments, controlling their administration and encouraging coordination between its various parts are central tasks. For new governments who feel major changes need to be made to past practices and priorities they are all the more important. But control and coordination are not easily achieved. The weight of established patterns of commitment is always considerable. Careers and expectations, both individual and organisational, are built on these and, where change implies disruption, governments can expect resistance. In the NT after self-government there was an additional problem. The administration was not just getting used to a new ministry, it was getting used to the fact that there was a ministry there at all. For the ministers the problem was to establish their authority, as novices, over administrators who often saw their experience in running the NT as greater qualification for important decision making than their minister's electoral success. The NT government moved quickly to assert its control of the administration by recruiting new and shuffling existing senior public servants and by establishing a number of offices within the department of the Chief Minister sensitive to political direction (Weller and Sanders 1982). The exercise has not been without its costs. Expensive new senior recruits have proved hard to retain and the government has gained a reputation for being capricious and cavalier in its treatment of public servants. There has also been, as we shall see, some change in the government's approach to achieving coordination and control.

Soon after July 1978 the government moved to extend its influence over established administrative practices by building up the Office of Policy and Planning (OPP) within the Department of the Chief Minister. The new Office appeared to reflect a rather rational managerialist approach to policy making. Theirs was, as Smith has characterised such rationalism,

> the language of strategic planning, specifying objectives, rationalising budgetary procedures and measuring performance...(which) holds out the promise of a more controlled and predictable machinery of government and a stronger connection between intention and effect in official policy (1978: 178).

However, the reality was otherwise. Faced with the day to day pressure of politics, the new government had little time to devote to long term planning and clarification of objectives. The OPP was drawn into immediate problems. It was given the task of providing an alternative opinion to the Chief Minister on all cabinet submissions. It recieved a stream of one off projects to attend to: the establishment of the NT's first migrant hostel, a report on the remuneration for the Territory's new politicians and some preliminary work on plans for a new power station in Darwin. When the OPP did, at chief ministerial direction, venture into fields of more significant and comprehensive policy review and intiative, it found itself confronted by departmental, and at times even ministerial, hostility. Many departments, even at permanent head level, regarded the OPP with suspicion and felt that it interfered unjustifiably in departmental affairs in which it had no expertise. The matter came to a head in mid-79 when, as a result of concern with energy matters at the premiers' conference of that year, OPP was instructed to develop an integrated NT energy policy. The Department of Mines and Energy saw the move as unwarranted interference in its affairs and because some ministers took a similar view, the OPP's work became a major issue in cabinet. The newly recruited head of OPP, Ken Willet, was sacrificially removed and the office, with caretaker installed, adopted a lower profile.

These early experiences of the fledgling OPP are by no means unusual. In many ways they illustrate the characteristic dangers of using a centrally located policy unit as a means of asserting government control over administration. Departments easily become defensive about intrusion into their fields of responsibility and ministers can just as easily become ambivalent as, caught between these departments and the cabinet, they come to question whether the central policy unit is a means of asserting cabinet control over administration or one by which first ministers attempt to control everyone else's business when the wish takes them. The Policy Coordination and Review (POCAR) Division established in the NSW Premier's Department after the election of the Wran government in 1976 and the Policy Division of the SA Premier's Department during the Dunstan era both suffered similar departmental and ministerial hostility (Woodward 1982: 33-35, Warhurst 1982a: 24-26). These experiences do not, of course, suggest that central policy units ought to be abandoned. Governments wishing to make major changes to the policies and practices of their administration will, no doubt, continue to feel the need for such units. What the experience does suggest is that, in doing so, governments, and particularly first ministers, need to be aware of the potential such units have for provoking hostility and suspicion, and that this will need to be managed. In SA the Policy Division survived the Dunstan decade, but its reputation was such that the incoming Liberal government in 1979 was committed to its abolition. In NSW the POCAR experiment lasted only two years. In the NT, as we have seen, after less than a year OPP was given a lower profile and the government (primarily the Chief Minister) began to cast around for other ways of asserting control.

In July 1980, just after the NT's first election since self-government, the Chief Minister made his next major move. A reshuffle of senior bureaucrats and ministers was taken as the opportunity to draw into the central fold one department head who had been a strong critic of the Department of Chief Minister's (and particularly OPP's) central policy role. Ray McHenry was appointed Co-ordinator General and the position was upgraded to department head status. Previously the Office of the Co-ordinator General (OCG) had been a small secretariat servicing the Co-ordination Committee comprising heads of departments and statutory authorities. The monthly meetings of the Committee had been chaired by the Director General of the Department of the Chief Minister while the Co-ordinator General acted as secretary. The latter's role was less than onerous. The meetings focussed on basic matters of administrative

coordination between departments. The amount of work that flowed from the meetings was small and the Co-ordinator General often found himself involved in odd jobs that even the OPP did not want - cabinet submissions on the potential for crocodile farms in the NT or helping organise Territory displays for shows. In these early days many department heads regarded Co-ordination Committee meetings as unimportant events which often got bogged down in trivial details without providing any general direction. The pattern was soon to change.

At the first meeting of the Committee after the reshuffle, Everingham took the opportunity to impress on the department heads that the government regarded them as a pool of senior personnel to serve the government, not particular departments. No doubt he saw the Co-ordination Committee, which henceforth would be chaired by the Co-ordinator General directly, as having an important role to play in engendering such senior administrative loyalty. Under McHenry the Committee and the Office grew considerably in importance. The OCG staff of 7 had doubled by June 1981. More work of more importance started flowing to the Committee and the Office. New procedures for the preparation of annual budgets and capital works programs by small sub-committees chaired by the Co-ordinator General were developed. Some major isues relating to energy - options for Darwin's new power station and the renegotiation of the Commonwealth electricity generation subsidy - were dealt with by an energy sub-committee. The Office was given the ongoing job of ensuring, through the Committee, that all relevant departments had been adequately consulted on forthcoming cabinet submissions and of monitoring the implementation of past cabinet decisions. In one instance, the Community Improvement Program for remote Aboriginal communities announced before the election in 1980, this involved the establishment of a sub-committee and parallel committees of administrators, known as task forces, in each of the regional centres of NT governmnent.

The rise of the Co-ordination Committee and the OCG under McHenry was spectacular and, although he has now moved on, their central role in NT government administration remains undiminished. The Committee is still not immune from getting bogged down in trivia, but it has developed important general procedures which have enhanced both government control and inter-departmental coordination. The Co-ordination Committee has become a quasi-cabinet in which department heads rehearse the issues that their ministers are to deal with in cabinet or through which the implementation of cabinet decisions is monitored.

These developments represent a major change of approach to the assertion of cabinet control in the NT. They also bear out some recent analyses which argue more generally that the problems of central coordination and control in government are not primarily ones of harmonising objectives, priorities and administrative structures at the outset, but of managing conflict as it (inevitably) arises along the way in the diffuse and confused policy processes of modern government (Painter 1981, Smith 1978). The task for central agencies seeking to impose some sense of government as a whole then, is one of structuring and managing these policy processes in ways that build in ongoing incentives for sectoral administrators to consult with each other, the central agencies and their political masters at appropriate times. The OCG/Co-ordination Committee approach focusses attention on the flow of business to and from cabinet and attempts to draw in departments through the participation of their heads on the Committee. Although this has by no means eliminated the potential for departmental and ministerial antagonism to central interference, it does appear to have managed that potential for conflict much more effectively. Both the need and the incentives to coordinate seem to have been made that much more persuasive. Opportunities for effective cabinet direction have been extended. Central direction appears just that much harder to resist if it comes in the 'normal' flow of business to and from cabinet and through a committee which co-opts department heads, rather than as arbitrary and capricious intervention by a small central policy unit.

The changes have not, however, meant that there is no role for the central policy unit. OPP has continued to provide a second opinion on all cabinet submissions for the Chief Minister and to be involved in one off, though not unimportant jobs - preparation of submissions to various federal government

inquiries of interest to the NT, an input/output model of the NT economy, background work on specific major projects such as the proposed Alice Springs-Darwin railway, etc. The OPP has even been involved in some policy reviews of the kind that are wont to provoke departmental ire - for example, the Report on NT Housing Needs which it produced in 1981 in conjunction with the Departments of Lands, Treasury and the Housing Commission. In so doing, and as the list of co-authors indicates, it has adopted a more cooperative and less interventionist style. In fact in a move that can only be regarded as a favourable reflection on the OPP, its head since 1980, Alan Morris, was recently promoted to the position of Deputy Director-General and Co-ordinator General. Equally, however, this 'promotion' reflects the fact that OPP is now quite clearly secondary to the OCG and the Co-ordination Committee as a mechanism of cabinet control and coordination.

Two other offices need to be briefly mentioned in discussion of the development of cabinet control and coordination - the Office of Inter-government Relations, Parliamentary Liaison and Legislation and the Office of Parliamentary Counsel. Between them they preside over the Government's legislative program and are, therefore, of considerable importance when government initiatives require legislative as well as administrative action. Until 1982 the Office of Parliamentary Counsel was part of the Department of Law and its recent transfer to the Department of the Chief Minister, at the time when Everingham surrendered the attorney-general portfolio to one of his ministerial colleagues, can only be interpreted as an attempt to maintain the sensitivity of the legislative draughtsmen to the government's priorities and proclivities.

Inter-government Relations

In a federal system such as Australia's where there is much overlap and interdependence between activities of the different tiers of government, inter-government relations are ubiquitous and take many forms. Historically, links between individual state and federal departments with closely related responsibilities have been most important and have developed largely in sectoral isolation (Warhurst 1982b). It was not until the 1970s, and in particular the period from 1972-75 when the Whitlam government was pursuing numerous initatives in areas of traditionally state government responsibility, that Australian governments became concerned with maintaining some more coordinated overview of inter-government relations. Warhurst (1982b) has documented the establishment of federal-state relations units in both state and federal governments between 1974 and 1976 and , in all cases but one, these were located within the various first minister's departments. The flurry of activity was partly party political as conservative state governments became concerned with the federal government's intrusive activity. However most of the units have survived, albeit often in a different guise, and continue to have some place in federal-state relations. Equally, as Warhurst makes clear, the units have not achieved the pre-eminent and synoptic position in inter-government relations that some had envisaged. Like central policy units, they have often been looked upon with displeasure by functional departments, individual ministers and even other units within first minister's departments, all of which already had their own ways of conducting inter-government business. The units have not been able to cover everything and have had to opt for a rather more modest role, while leaving the basic patterns of inter-government relations intact. Warhurst (1982b) identifies four ragged and overlapping categories of work that these offices undertake (my paraphrasing): servicing of first minister-first minister relations where either protocol or strategy dictate that relations be conducted at this level; collection and distribution of information about other levels of government and functional inter-government relations; regulation of one-to-one relations between individual Commonwealth and State departments; coordination of inter-government relations where issues transcend departmental divisions and call for input from a number of parts of government administration.

In the NT, although since self-government there has always been one single office with inter-government relations in its title within the Department of the Chief Minister, actual arrangements for inter-government work have been complex. The Office of Inter-government Relations and Parliamentary Liaison grew from a legally oriented unit which was closely involved in constitutional matters at

the time of self-government. As time has passsed and Commonwealth-Territory relations have become more substantive in nature, the Office's role in inter-government relations has diminished. Although retaining its responsibility for constitutional development, most of the Office's work now concerns the government's legislative program. This change was indicated by the addition of 'Legislation' to its title in 1982.

The other administrative unit which might be expected to have had a primarily inter-government relations function, the NT's Canberra Office, and which came under the Chief Minister's portfolio although not within the department, has now been discontinued (for an account of this Office during its operation see Warhurst 1981a). The Office clearly had a significant information collection and distribution role but its usefulness on the wide range of issues requiring inter-government negotiation was limited. The NT Government found that on most substantive issues it was still necessary to send other bureaucrats to Canberra. This being the case, the question was raised whether it would not be more efficient to obtain information through professional lobbyists - and on the resignation of the officer concerned this latter arrangement was preferred.

The NT government, perhaps more than most of the state governments, still finds itself conducting inter-government relations through different channels in different ways at different times. That this is so is itself a comment on the ubiquitous nature of inter-government relations in the Australian federal system, and particularly in the NT which is so heavily dependent on Commonwealth finance. In the NT most important issues will more than likely have some inter-government aspect. The development of the NT's Alligator Rivers region with its complex of issues relating to uranium mining, Aboriginal land rights and nature conservation is a pertinent example and one that has increasingly become a central concern of the Co-ordination Committee and the OCG. If there is a pattern to be divined in the NT government's conduct of relations with the Commonwealth, it is that the more important issues are, for largely strategic reasons, the province of the Chief Minister. For administrative support he may reach directly into an appropriate department such as Treasury for finance matters, alert the OPP for special tasks such as submissions to Commonwealth parliamentary reviews or work through the OCG and Co-ordination Committee of permanent heads.

Publicity

Sharman and Stuart list two aspects of the publicity function of premier's departments: public relations and state promotion. The first of these is largely a matter of governments selling themselves to the electorate, the second of selling their regions to outsiders, be they tourists, developers or potential migrants. Prior to 1978, the Commonwealth administration of the NT felt little need to engage actively in either of these types of activity. The new NT government, partly no doubt because it is very vulnerable in its small electorate, has placed considerable emphasis on them both. Much work carried out by ministerial press officers, speech writers, electorate secretaries and others greases the wheels of government-public relations, as do many services such as the Government Information Centre. But the NT Government has attempted to supplement this with a more activist and professional publicity program. Until its disbandment in 1983 the NT Information Service (NTIS), within the Department of the Chief Minister, presided over a program which had produced a bi-monthly magazine, promotional material to celebrate each year of self-government, exhibits for shows, a series of fact sheets, a number of short promotional films and a good deal of other promotional material. Some items were clearly directed to the NT electorate, others more to outsiders. But NTIS was, from its inception, unsettled. It had four directors in as many years. With each director came a different emphasis depending on individual media expertise and experience. After the resignation of the fourth director, the Service was slowly closed down. The Government Information Centre, which had operated as a largely independent unit, though nominally part of the Service's responsibilities, was transferred to the Department of Transport and Works. Journalists involved in the publicity program were relocated and the government resorted to contracting out most of its publicity work.

Social Policy: Special Interest Consultation

Under the heading of social policy Sharman and Stuart list offices of the premier's departments dealing with women's and ethnic affairs and initiatives in areas such as equal opportunity and anti-discrimination. In the NT there is one office of the Department of the Chief Minister which falls broadly in this area of social policy and which warrents further discussion - the Office of Aboriginal Liaison (OAL). The existence of this Office sets the NT Department apart from its counterparts in the states. NSW did have a small Aboriginal affairs unit within the Premier's Department before the recent establishment of a Ministry of Aboriginal Affairs and the Victorian department has had a similar unit in its Premier's Department since 1982. But nowhere else is the Aboriginal minority so demographically (and probably politically) significant. Nowhere else are Aborigines a quarter of the population and the majority of electors in a number of electorates. Nowhere else is there yet a well developed central unit concerned specifically with government-Aboriginal relations.

The OAL likes to think of itself as a voice for the interests of the NT's Aboriginal population within government administration, as facilitating communication between Aborigines and the government. One of its central tasks has been the organisation of annual conferences at which representatives of Aboriginal organisations and community councils meet with politicians and senior administrators. In between times it has Aboriginal field officers who keep it informed of the latest developments in Aboriginal concerns. The OAL is clearly a major facilitator of consultation, but not necessarily one that always favours an Aboriginal viewpoint. Consultation is a two way process in which the OAL is expected to make the Government's view understood by the Aborigines perhaps more than vice versa. Critics of the OAL's self image may point to its role in the major contemporary issue of special concern to the NT's Aborigines - land rights. The OAL has had a crucial role to play in NT government activity here - submissions to land rights hearings, attempts to pass complementary legislation to the federal land rights act - the intent of which has often been to attempt to minimise the amount of land that will become Aboriginal freehold through the land rights process. The work of the journalist transferred from NTIS is another example of the ambiguity of the OAL's role. His initial task was to develop, with others, a series of video magazines suitable for distribution to Aboriginal communities. The program, which relies on the recent expansion of access to video recorders in these communities, has information dissemination objectives which at times become a matter of promoting government activities and policies to an Aboriginal audience.

Development Projects

State promotional activity is closely related to a more substantive concern of all state governments with the promotion of economic development, and in this the new NT government has proved to be no exception (Warhurst 1981b). Most states have sectoral agencies which offer incentives to potential developers. In the NT this is the NT Development Corporation. Central agencies are usually only drawn in when large scale private development projects are at stake, and in the NT this has until recently been the brief of the Office of Special Development Projects (OSDP) within the Department of the Chief Minister. In fact, during its existence the OSDP was almost totally preoccuppied with the development of the NT's uranium province. Because at self-government the federal government retained control over uranium mining and because it has occurred within a federally controlled national park on Aboriginal land, the development has involved a more than usually labyrinthine process of inter-government and corporate-government negotiation. Initially the OSDP had responsibility for all NT government negotiations, but in 1980 responsibility for inter-government aspects was transferred to the Office of the Co-ordinator General, leaving OSDP with oversight of the development of the town of Jabiru and negotiations with the various mining companies. In 1982 the OSDP was subsumed within the OCG. It now seems likely that negotiations surrounding future major development projects will be handled from this Office or, when sufficiently advanced, delegated to the functional authorities seen to have the most relevant responsibilities and interests. The latter has already occurred in the case of the Yulara Tourist Village, supervision of which was assigned to

the NT Conservation Commission after some initial central and inter-departmental planning.

Conclusion

Examination of the NT Department of the Chief Minister has led in a number of directions. First, the discussion of the causes of the Department's importance and growth since self-government suggested that, for such a small political system, the NT has a surprisingly well-developed first minister's department. We sought to explain this in terms of some of the peculiar and unique problems facing this new government in the early years of self-government - its need to develop its own authority and legitimacy and its attempt to make significant changes to established policies and administrative arrangements. On the other hand, examination of the functions performed by the various offices of the Department, and the problems encountered along the way in performing these, points strongly to the essential similarity of the role of this Department with those of its counterparts in the states. Like them, it has been used as a repository for the usual collection of administrative odds and ends. Like them, it has been involved in the now familiar promotional exercises through which governments try to sell both themselves and their regions. It has also taken a strong interest in the procurement of major private development projects and social policy initiatives. It has become a focal point for inter-government relations and for government efforts to centrally control and coordinate administration in order to make it more responsive to government priorities. In so doing, the NT department has probably been more successful than most. Even so, it has experienced many of the same problems of departmental and even ministerial suspicion and hostility that central agencies elsewhere have encountered and, again like others, has had to continually adapt its approaches along the way.

To some extent these two major findings of the discussion diverge and call for analytic reconciliation. The answer, I would suggest, lies in acknowledging that the legacy of Commonwealth administration did present certain unique problems for the incoming NT Government at the time of self-government, but that, in the five years since, the new government has, both intentionally and unintentionally, come quickly to resemble the governments of the Australian states. The NT Department's concerns and style of operations so closely reflect those of its counterparts in the states as to suggest that, at least in this respect if not constitutionally, the NT has become Australia's newest and smallest state, sharing their priorities, concerns and styles of government.

* I would like to thank departmental officers and former officers for their cooperation in research undertaken in the preparation of this paper. That cooperation has given the paper much of its substance. Without it the paper would not have been possible. Responsibility for interpreations of events and analysis of the department's role, however, lies entirely with me.

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DEMOCRACY AND PLANNING IN A SMALL MINING TOWN

THE GOVERNANCE TRANSITION IN JABIRU, NT

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> As communities beyond the city become increasingly improved with growing national emphasis on resource development, the question of their governance (and public participation) becomes more salient. How much autonomy will they have, how much should they have if they are to contribute to the creation of the good society? (Bowman 1981, XXVII)

The new uranium town of Jabiru in the Alligator Rivers Region of the Northern Territory occupies an ambiguous position in the minds of Territorians. It is one of the largest capital development projects in northern Australia and, whilst it contributes significantly to both the Territory and Commonwealth treasuries, it is also the focus of issues that have made its development and its future a source of contention. The issues are familiar ones in the 1980s and include fundamental questions about the appropriateness of uranium mining itself, the rights of Aboriginal owners of the land in the Alligator Rivers Region, and the need to protect the natural environment while opening up the area to tourism. Any project which impinges on even one of these issues is likely to be seen as a mixed blessing if only because of the controversy it engenders in the community. The mutual conflict inherent in the situation in Jabiru complicates allegiances and has given rise to circumstances where virtually all participants in the development and administration of the area are aware of the variety of viewpoints, and of the competing advantages and disadvantages of continuing development. Even more fundamental to the ambivalent reaction which Territorians feel towards Jabiru (eg NT News, ed., 11 July 1983) however, is the fact that few of the chief decisions regarding the social and economic development options are determined in Darwin, and even fewer appear to involve any degree of local autonomy.

It is thus intriguing to discover that although Territory involvement in the Alligator Rivers Region may be strictly limited, there are plans afoot to secure 'normal' representative local government in Jabiru itself when the establishment functions of the present town development authority (JTDA) are considered to be complete. The origins and early experience of this governance transition and the extent to which popular participation is possible or desirable in Jabiru are the primary foci of this paper. In broad terms the study seeks to monitor the use of the development authority model in new town establishment during a period when many resource companies are reassessing the extent of their involvement in areas outside the directly productive operations in mining itself (see also Lea and Zehner, 1983a). Although the complex circumstances of development in Jabiru may represent something of an extreme case, the recent examples of the Franklin Dam in southwestern Tasmania and the gold/copper/uranium prospect at Olympic Dam near Roxby Downs in South Australia indicate that mutual contradictions between national, regional and local development objectives are found elsewhere as well. What is much less certain is whether traditional governmental frameworks are capable of reconciling and managing the major conflicts involved.

The paper is in four parts: the first is a brief examination of comparative research into the sociology and planning of mining communities which forms the context of the present study; a discussion of the important features of the governance transition as it is being experienced in other parts of northern Australia and overseas then follows; the third is an account of the recent experience of introducing popular participation in local government at Jabiru; and finally several scenarios for the future development and government of the town are identified given the high degree of uncertainty about its immediate prospects.

Social Research and the Mining Community

Resource-based towns are found in most societies and, as phenomena, have become the object of considerable theorizing in the social science and planning

literature (Bradbury, 1979; Bulmer, 1975; Nash, 1979 and, in Australia, publications by CSIRO). Criticisms of research objectives and the methodologies employed have reached a stage today which makes it prudent to identify key assumptions and concepts before proceeding to an examination of the subject matter itself. It is clear, for example, that the social characteristics of these communities exhibit regularities such as unbalanced population profiles, curtailed social networks and so on, regardless of major differences in other respects. The reasons for, and the effects of, these distinctive patterns of social characteristics become the object of inter-disciplinary theorizing at various levels of analysis and from different ideological persepctives. An attempt is made here to outline the broad interdisciplinary context of this investigation at Jabiru by indicating, first, its relationship to sociological models of the mining community; second, the planning and managerial dimensions of new communities as illustrated in contemporary North American and Australian literature on the subject; and third, the question of local government and democracy in mining towns. The discussion is not therefore limited to a single disciplinary focus nor to the confines of a single ideological position.

Sociological Models of the Mining Community

Although this is not the place to discuss the respective merits of differing theoretical contributions to the sociological literature on mining communities in any detail, it is important to recognize the diversity of approaches which are possible. For example, if our objective is to understand the dynamics of change in the social character of these settlements, it is useful to employ a framework, such as the simple matrix developed by Bulmer (figure 1), to assist our characterization of the diversity of possible approaches. Thus the sources of change in the community may be distinguished as originating from outside or within the town, and the focus of the research may be directed at social structure or at social interactions between individuals or groups.

Figure 1

Distinctions in the Sociological Analysis of Mining Communities
(after Bulmer, 1975, Diagram 1)

		SOURCE OF CHANGE IN MINING COMMUNITY	
		Exogenous	Endogenous
LEVEL OF ANALYSIS	Social Structure	SOCIAL INSTITUTIONS IN TOWN	SOCIAL COLLECTIVITIES OF RESIDENTS
	Social Interaction	SOCIAL CONDITIONS OF ACTION	ENDS AND DEFINITIONS OF SITUATION

In addition to these purely analytic distinctions, there are obviously important ideological differences between sociological investigations of the mining community. A Marxian political economy approach would be primarily concerned with determining the influence of external issues and production rather than consumption factors, and pay little attention to things which appear to originate within the community itself (Williams, 1981 for an Australian example). The latter, as Bulmer points out, include Gemeinschaft social relations and other endogenous issues such as human motivation which do not seem to be the product of external forces alone.

A rather different attempt to model the dynamics of community life in single-industry mining towns is seen in the 'stage theory' of Lucas (1971) which has been elaborated in the Canadian context by Bradbury and St Martin (1983). The focus of Lucas' research is the large number of small Canadian single-industry communities where four stages of town development are identified: 1 'construction period', and 2 'recruitment of the citizens', which are stages marked by high labour turnover, a predominance of young people, high birth rates and unbalanced sex ratios; 3 'transition', which is the stage when the company transfers its major interest to mining or its productive base, and the community becomes progessively responsible for many aspects of town life; 4 'maturity', the last stage, is characterized by reduced adult mobility, retirement and the departure of the young. In addition, Bradbury and St Martin identify a fifth stage, 'winding-down', which may lead to eventual mine closure and involves the 'disintegration of community life for present residents'.

In the context of these models Jabiru falls into stage 3 of the Lucas typology and the present study is also primarily concerned with the 'institutions' and 'collectivities' indicated by the top two squares of Bulmer's matrix (figure 1). In ideological terms (Wild, 1981 for the different ideological approaches) the study is based on conventional or normative values in Australian society regarding the importance of democratic self-government and increased popular participation in decisions affecting the local community, which is an issue discussed in more detail later in this paper. There is no denying the importance and value of holistic attempts of a more radical kind in analysing the circumstances of the regional economy nor, for that matter, the condition of the mining industry itself, but this is not the primary objective of the present work (see Thompson, 1983 for example).

Considerations of urban planning and the implementation aspects of development decisions also form an important part of the investigations at Jabiru, and the nature of this interest is indicated here by reference to the large, and parallel, research literature on the US energy boom towns, Canadian mining settlements, and the governance transition in the Pilbara.

Researching the US Energy Boom Town

Modern reference to boom towns in the United States is usually concerned with the energy boom in the inland west during the past three decades which follows the much earlier history of boom and bust which accompanied the mineral discoveries in this region in the 19th century (Zillman and Solomon, 1983, 2-4.). The origins of contemporary boom communities are based, as Zillman and Solomon have demonstrated, on the presence of large quantities of energy and non-fuel minerals; hydro-electric potential; an overall desire for energy self-sufficiency; and a national concern to become self-sufficient in strategic minerals. In several important respects conditions in the inland west are similar to those in northern Australia, and the nature of the problems experienced has led to similar kinds of planning approaches.

Both regions possess extensive areas of national park and wildlife conservation; they both contain elements of pre-capitalist social systems in the presence of the small indigenous populations who have survived the impact of white society (World Bank, 1982); and they are both characterized by the significant presence of the federal government. In the latter respect it is important to note that 'today over 80 per cent of the land in Nevada and over 65 per cent of the land in Utah remain in federal ownership with the substantial

federal control that implies' (Zillman and Solomon, 1983,3; also D. Martin in New York Times, 3 April 1983 for a Canadian example). Indeed, the feeling of deja vu about the American example as far as northern Australia is concerned persists in the recognition that:

> While the federal presence is often vigorously resented by natives of the inland west, it must be remembered that federal incentives were essential to the growth of the region. Gifts of land to homesteaders and the railroads opened the area to settlement. Federal financial subsidies of water projects built the dams and irrigation canals that make the region livable. Government defense programs provided the economic base to develop the region (Zillman and Solomon, 1983, 4.).

The comparison between American and Australian experience also extends to the planning and organizational procedures adopted to manage the social and economic developments associated with the energy boom. It is not unduly surprising to discover that legislation in both countries requires the preparation of an Environmental Impact Statement (EIS) where major new development is proposed, and that an important aspect of such EIS preparation is the assessment of social impacts. In the United States this has given rise to the adoption of a new range of growth management techniques and programs which are identified by Gilmore as follows:

> Growth management ... does not mean centralized control of economic activity and growth either by government agency or an industrial firm or group. Growth management does involve generating enough cooperation among groups and the persons involved to develop the economic, political and social tools needed to use them to implement solutions to these questions: where should growth be located? ... How should the benefits of growth be shared? How should the costs of growth be paid for, and who should pay for them? (Gilmore, 1976, 537).

One easily identified product of the new legislative procedures is the growth of an extensive array of government agencies, private research institutes, and technical consultants eager to translate the notoriously difficult task of social impact assessment into a planning system of elegant flow charts and management procedures. The process is simplistically described by three employees of Bechtel Incorporated, the giant multinational consultancy, as being '... founded on open and forthright communication between the project and the community, before, during and after project construction', (Hietbrink, et. al., 1978, 304) with little attention apparently being paid to the possibility that a project may not receive community support at the outset, or during (or after) the development phase (see also Markusen, 1980).

Although the great majority of boom town examples referred to in the US literature apply to the expansion of existing rural communities, one possible variant is the creation of a new town in very sparsely settled regions where the focus will shift to other matters such as the appropriate form of governance to adopt (Lonsdale and Holmes, 1981, for Australian and US writing on sparsely settled regions). These are the circumstances which have prevailed in many new mining communities in northern Canada and northern Australia and have given rise to a range of different practices among the various Provinces and States in the two countries (Lea and Zehner 1983b). Before examining the changing approaches towards mining town management in these regions and the specific example of Jabiru, it is necessary to say something about the underlying question of local government and democracy in small resource-based communities.

Local Government Democracy and Mining Towns

It is important to recognize that although democracy in the form of representative local government has been singled out as a desirable form of governance for mining towns, 'there is no necessary theoretical or historical connection between traditional local and municipal government and democracy,

(Atkins, 1976, 51). As Atkins has also pointed out, local government can scarcely fit into the early stages of any new town if an outside agency, other than a local community, is bringing the town into being. Even at a later stage, when the community has become established, the situation from the residents' point of view is not at all clear cut and fears are often expressed that a changeover from company control may result in a lowering of standards and other problems. Examples of this dilemma date back to the mid-nineteenth century in the Victorian goldfields (Barrett, 1979, 243-4), and can now be seen in the contemporary reluctance of Canberra residents to adopt self-government. This response may indeed have been well founded in the past for the role of rural local government in Australia has met with considerable criticism:

> Traditionally rural local governments have attended only to minor engineering works, the enforcement of building and health codes, personal welfare services, and latterly, amidst controversy, to physical planning. New South Wales, South Australia, like the Northern Territory, also contain a dozen "shires", each comparable in area to Austria or Ireland, but with populations rarely exceeding 10,000. These are travesties of "grass-roots" democracy. They initiate nothing. At best, they are statistical filing compartments for state and federal policies. Thus, throughout rural Australia, local and state governments have become little more than delivery and monitoring systems for the economic and social policies of the Australian Parliament in Canberra (Ryan, 1980, 38).

There is a strongly held view that a good model of local administration should be 'an instrument of democratic self-government', to use one of the criteria stressed by Power et al., in their authoritative work on Australian local government systems (Power, Wettenhall and Halligan, 1981). Furthermore, there are good reasons for establishing 'some institutional arrangements for the making of community choices and the expression of local preferences and priorities' (Atkins, 1976, 51). Atkins suggests that the eventual form of governance a mining community will adopt will depend on the responses to at least three sets of sequential issues:

(1) Whether some form of 'normal' elected local government is desirable eventually;

(2) When the changeover should take place if the answer to (1) above, is in the affirmative; and

(3) What form and functions the body which is finally chosen should assume.

The situation in Jabiru currently involves stage (2) and stage (3) issues, as the decision was made to move towards elected local government in 1981. Elsewhere in northern Australia much more experience is evident, with several resource-based towns in the Pilbara now in the process of going through a full changeover from company control to local shire administration. This 'normalization' process provides a useful record of the significant issues from the perspectives of both sides, and has also become the subject of considerable criticism by radical scholars. Many similarities are also apparent between a much longer Canadian experience of governance transfer and the Australian situation and we now outline some of the chief issues involved.

The Governance Transition in Mining Towns: Capitalist Imperative or Democratic Ideal?

An examination of Australian and Canadian accounts of the transition in mining town governance immediately reveals two opposing positions concerning the motives of companies and state administrations who support the adoption of popular forms of local government. As might be expected, those employing a political economy perspective view these developments in a largely negative way suggesting that, '... normalization has resulted in a transfer of costs of housing and of the reproduction of labour power from the company to the citizens...' (Bradbury, forthcoming). Whereas, government and company sources

are likely to emphasize the hidden advantages of lower costs and reduced opportunity for industrial stoppages (see table 1). The rationale for the latter objective is that mine workers saddled with the costs and responsibilities of paying off a home are less likely to be able to afford the burden of lengthy strikes.

TABLE 1

Company Town 'Normalization' Concepts of the Mt Newman Mining Company, May 1983.

'The basic concepts pivotal to the normalisation process are as follows:

1. Normalization is the process whereby a community governed by a non-elected body is transformed into a free enterprise based permanent community governed by a democratic structure consistent with other such structures elsewhere in Australia.

2. The normalization process does not continue indefinitely as, by definition, it is a transitionary process which terminates when the transformation referred to in (1) above is achieved.

3. Mt Newman Company's original scope of work included (in addition to its mining activities) the construction and administration of the town of Newman, which embraced residential, commerical, civic and utilities services. Policy decisions were subsequently taken by the Joint Venturers which required the Management Company to retreat from its rights and obligations in matters affecting the government of the town of Newman. (These major policy decisions were embodied in the Iron Ore (Mount Newman) Agreement Amendment Act and the Proposals of 1979).

4. There is no intrinsic reason why the towns of Port Hedland and Newman cannot, in the future, develop in a similar fashion and by similar means to other comparable permanent towns elsewhere in Australia.

5. Mt Newman Mining Company is now obliged, through the period of normalization, to rigorously review all its administrative procedures and its involvement in non-iron-ore related activities and to encourage the achievement of 'normality' in the two towns which service the Company's iron ore activities.'

Source: Contained in a letter from the Administration Manager, Mt Newman, Mining Company to the Chairman, Jabiru Town Development Authority, 20 May 1983.

The major outcome of this political economy citique, which is represented in the Canadian literature by the extensive research of Bradbury, and in Australia by Thompson (1981) and Harman (1983), is to suggest that normalization is functional to the interests of capital and detrimental to those of the working class: 'The end result will be fewer benefits of any type in the future, a more docile, submissive labour force, and a further reduction in working people's ability to control their own lives (Thompson, 1981, 302). It is easier to assess such a structural and determinist explanation when it can be related to specific policies which make up the normalization process. Chief among these are the actions which appear to be designed to reduce company involvement in domestic urban activities such as the provision and maintenance of employee housing.

The motives which have encouraged mining companies in the Canadian subarctic and the West Australian Pilbara to introduce house purchase schemes for their employees clearly do not depend on altruistic factors. One argument goes that besides reducing company overheads and increasing the rate-paying tax base of the town, a property owning class of workers will be too financially committed to risk the withdrawal of their labour power even if this is warranted to secure better working conditions:

> The ultimate weapon any unionist has is the withdrawal of labour power from the production process. However, the realisation of production is consumption. If workers commit future earnings for high cost consumption in the present, then those future earnings cannot be jeopardised. This then presents the contradiction for working people of a house purchase scheme such as that offered by Mt Newman Mining: in order to consume (housing) the workers must sell their labour power; but the more they consume, the less bargaining power they hold over that labour power (Thompson, 1981, 320).

However, Canadian experience has shown that the creation of a new generation of home-owners in mining towns has little to do with promoting conservatism or docility, especially in an industry prone to periodic recession, but is more to do with reducing labour turnover:

> Company policy toward housing production and distribution in the post 1950 period, in mining regions in Canada, was focussed on creating a generation of private home-owners. Not necessarily because it would create a more conservative and therefore less radical working class, indeed it probably had the opposite effect in the long run, but more to fix individuals and their families to one spot in space and to reduce the costs of the reproduction of labour power for industrial capital (Bradbury, forthcoming, 8).

It is obviously in the interests of both the companies and the community that labour turnover is reduced from the high levels which have characterized many remote mining towns, but it is equally important that this should not be achieved at the expense of severly reducing personal control over life decisions.

A further consideration in the critique of normalization policies is the economic status of the mining industry and whether the overall economy is in growth or in recession. Bradbury and St Martin have shown in their research in the Quebec town of Schefferville that policies which are initially popular, such as employee house purchase schemes, may be regarded very differently when economic conditions deteriorate, '... in the long run it was negative in that it decreased the worker's mobility and increased his dependence on an unstable economic base'. Indeed, many of the advantages of normalization from a community standpoint, can be seen to be closely related to external factors and simply underline the general dependency of single industry communities.

A final point regarding the radical critique is that it is really directed at the problems of mining employment in capitalist society rather than at the circumstances of the normalized towns themselves. It is a fact, after all, that just as much radical criticism has been levelled in the past at towns where the company is in sole control: 'The pure capitalist mining community is ... a company town in which the company is party to all the principal economic transactions carried on within it' (Bulmer, 1975, 85). Whilst this may be a perfectly valid position to adopt, it presents some practical difficulties for town planners when the assumption is made that the Australian mining industry is likely to retain most of its present 'free enterprise' characteristics in the forseeable future. Under such circumstances it seems questionable to oppose moves towards self-government in urban communities on theoretical grounds alone, even though it appears likely that the companies will retain control behind the scenes. A perennial risk for radical scholars is that their critique of capitalism leads to what has been termed elsewhere as the 'structural trap of informed inactivity' (Smith, 1979, 265). In other words, changes which may ameliorate local conditions are opposed because they may also serve to support the capitalist system.

The Australian experience of normalization, which began with the West Australian Carly Report of 1977 (Carly, 1977; see also Thompson, 1981, 306), is still in its infancy and ongoing research is required to monitor changes, such as employee house purchase schemes and the success or otherwise in attracting the private sector to mining towns, as well as the circumstances of local government. It is already apparent, for example, that options exist which could

materially alter the financing of Pilbara normalization and involve differing approaches from shire and company points of view. Several Pilbara shire councils are of the opinion that the correct method of funding normalization is through the collection of full rates on company-owned industrial land (J. Reid, Shire Clerk, E.Pilbara, Shire Council to Chairman, J.T.D.A., 26 April, 1983). However, when the iron ore companies first commenced mining in the Pilbara, the West Australian Local Government Act was amended to include Section 533B which restricted rateability of such land by placing a greatly reduced value on it. The shires, rather than receiving special or 'supplementary' rates from the companies on normalization, have applied to the state government to restore full rateability. This has been opposed, naturally, and it remains to be seen whether existing financial arrangements will be a satisfactory basis for future local government in the towns.

We turn now to the case study of Jabiru where the choice of a suitable model of town governance is taking place in the context of regional issues and conflicts of a range and diversity unparalled elsewhere in rural Australia.

The Genesis of Self Government in Jabiru

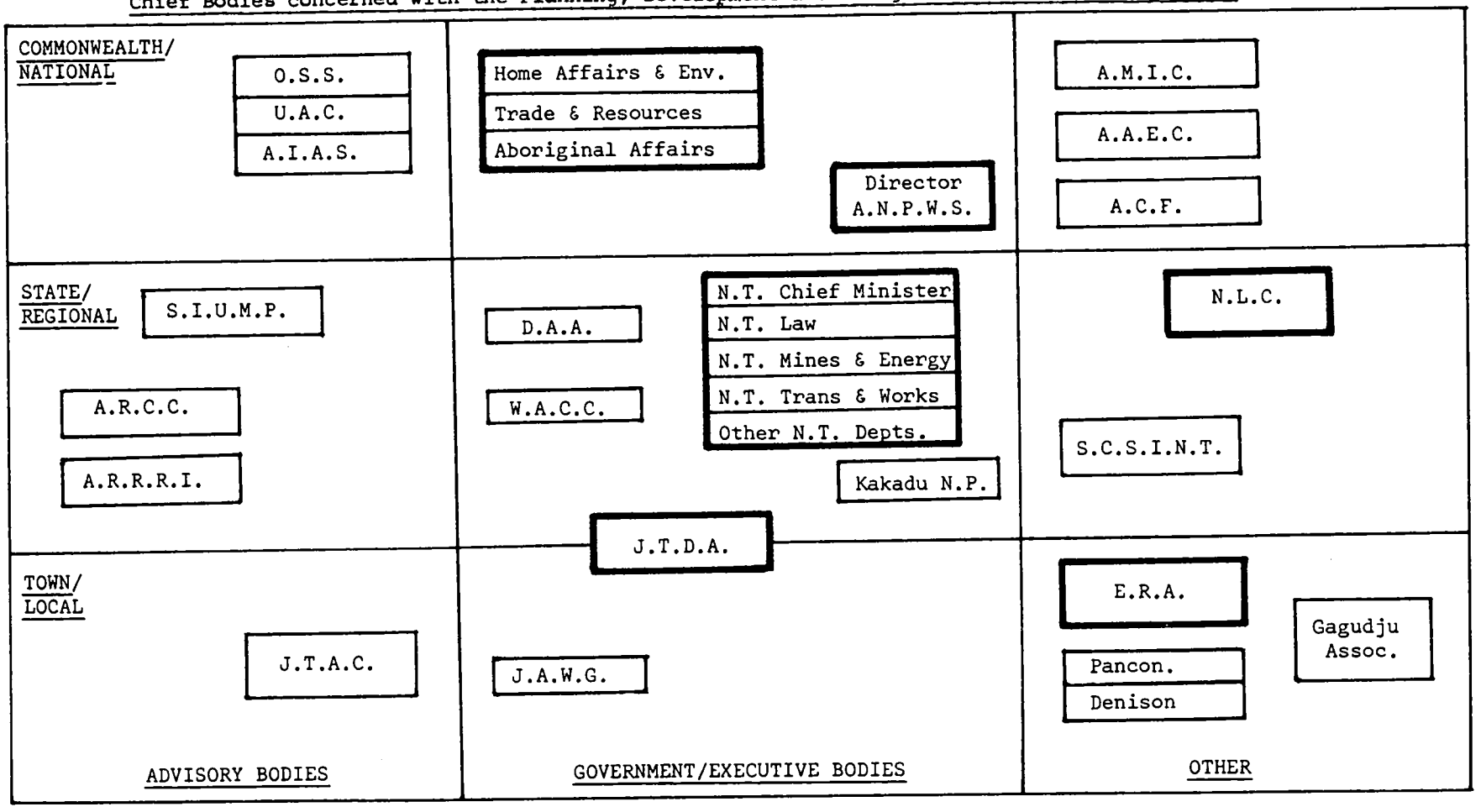
> This indecent haste makes nonsense of your hope that sensible co-operation will prevail at Jabiru as it has in the past. The gazetting of these regulations is a further example of the unwillingness to consult with the Northern Territory Government (P.A.E. Everingham, Chief Minister, NT to R.J.L. Hawke, Prime Minister, Australian 20 August 1983).

The administration of Jabiru and the debate surrounding its future development prospects must of necessity be seen against a backcloth of Commonwealth - Territory involvement in the town and surrounding region, as illustrated so dramatically in this telex message from the Chief Minister of the NT to the Prime Minister regarding powers to regulate the sale of liquor in the town. Such extra-Territorial interest in Jabiru raises several legal and constitutional matters which are already subject of separate investigation (Crommelin and Nicholson, 1981), and also serves to reintroduce the central problem of autonomy into this discussion.

As has already been suggested, there appears to be room for considerable conflict within an administrative system where regional issues are largely determined in Canbera, or in company boardrooms elsewhere, and where affairs in Jabiru remain a divided responsibility between the Terrritory and other bodies (see figure 2 for a full listing). It would be an exaggeration to suggest that such conflicts have been a major problem in the past, but the boundaries between these spheres of jurisdiction are far from distinct and there is the possibility, as the example of liquor sales indicates, that other important urban issues could be removed from local control.

Figure 2

Chief Bodies concerned with the Planning, Development and Management of Jabiru, N.T., 1983

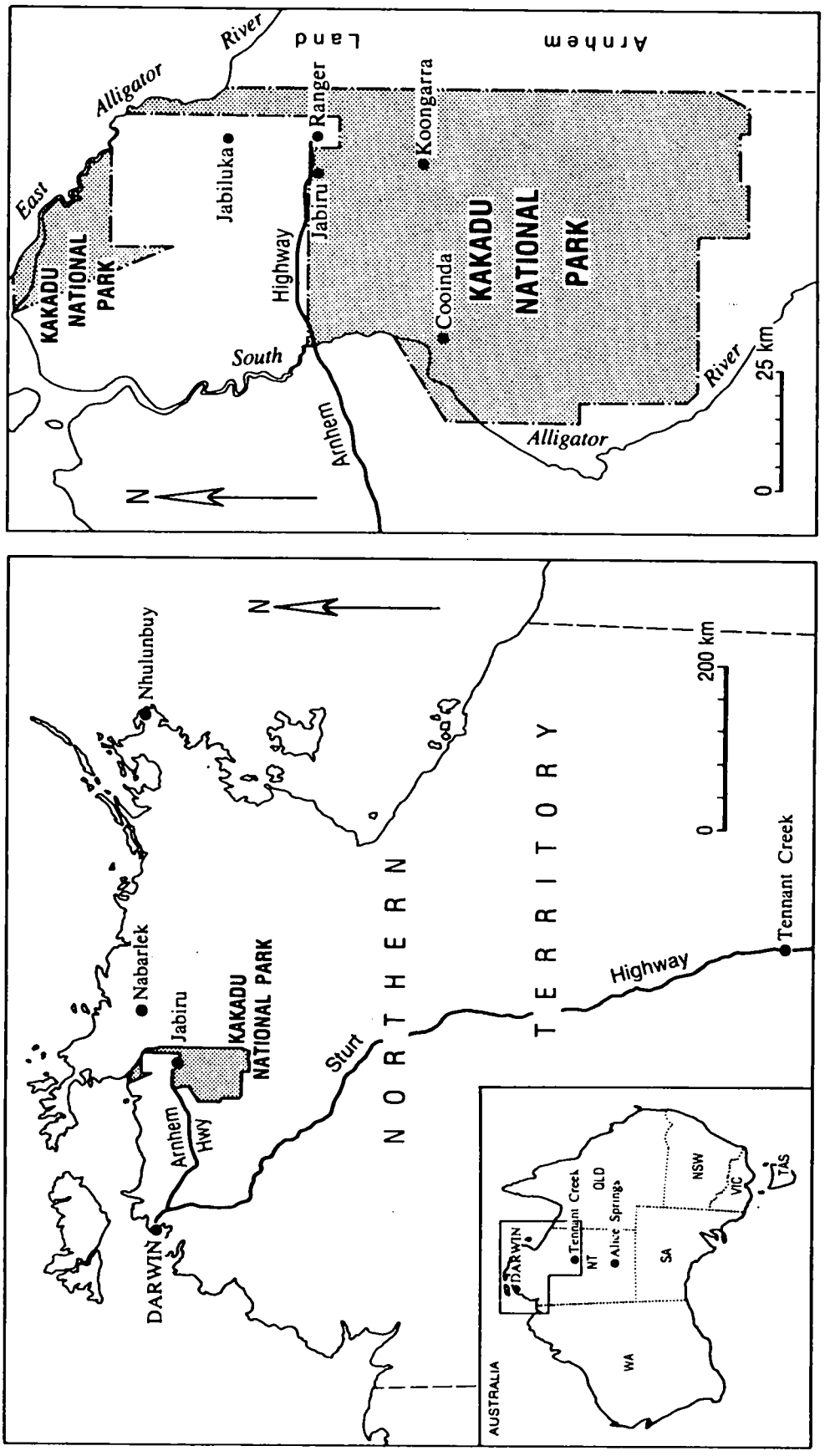


Definitions:

A.A.E.C.	Australian Atomic Energy Commission
A.C.F.	Australian Conservation Foundation
A.I.A.S.	Australian Institute of Aboriginal Studies
A.M.I.C.	Australian Mining Industry Council
A.N.P.W.S.	Australian National Parks & Wildlife Service
A.R.C.C.	Alligator Rivers Co-ordinating Committee
A.R.R.R.I.	Alligator Rivers Region Research Institute
D.A.A.	Department of Aboriginal Affairs
E.R.A.	Energy Resources of Australia Ltd.
J.A.W.G.	Jabiru Area Working Group
J.T.A.C.	Jabiru Town Advisory Council
J.T.D.A.	Jabiru Town Development Authority
N.L.C.	Northern Lands Council
O.S.S.	Office of the Supervising Scientist
S.C.S.I.N.T.	Standing Committee on Social Impact of U. Mining
S.I.U.M.P.	Social Impact of Uranium Mining Project, A.I.A.S.
U.A.C.	Uranium Advisory Council
W.A.C.C.	West Arnhem Land Co-ordinating Committee

(Note: Heavy line indicates greatest influence)

Whether it is possible, or sensible, under such circumstances to proceed towards attaining full local government in Jabiru is the central question now addressed. The discussion begins with a brief description of the origins and nature of the present administrative arrangements for the town before considering a shortlist of major issues classified according to regional and local scales of significance. The recent experience of popular participation in the government of Jabiru is then examined in relation to the town development authority (JTDA) and the new Jabiru Town Advisory Council (JTAC) (See Map 1 for town and regional location).



Map 1

Location of Jabiru and the Alligator Rivers Region, N.T.

The Origins and Nature of Town Administration in Jabiru

Although the initial construction phase was completed as recently as mid-1982, only three years after commencement in 1979, the first plans for a regional settlement were laid a decade earlier, shortly after the discovery of rich uranium deposits by several exploration groups (G.E. Stolz, Jabiru, in Australian 1 July 1983). It is important to recognize that the ALP government of the time in Canberra made strong recommendations for a regional central to be created to serve the needs of the pastoral industry, tourism and the prospective uranium mining companies. The Minister for Northern Development authorized the commencement of detailed studies for a regional township in 1973, and is quoted in terms which reflected the growth euphoria surrounding the mineral discoveries:

> Dr Patterson said the Government's decision had been influenced by the four important uranium discoveries in the region, all within close proximity to each other. He said the proposed town would be the place of residence for the bulk of the mining force of the proposed mining development. It could also serve as a centre for the pastoral industries and tourism (Cities Commission, 1973, App B.).

The early studies also indicate that the development authority model of town governance' which was subsequently chosen, and which is different from the administration of other Australian mining towns, had its origins in the procedures already established for Nhulunbuy on the Gove Peninsula. A model was required which could combine the interests of the public and private sectors from the outset, though the comment was made at the time that there was 'no advantage in the introduction of normal local government procedures at least until the town had passed a population of around 10,000 persons' (Cities Commission, 1973, 21). At Nhulunbuy the town was built by a private consortia of mining companies and it was only after completion that public representation was secured via the appointment of NT public servants to the Nhulunbuy Town Board Incorporated (Agius, 1976).

However, the present purpose in recalling these early views, most of which were to be overtaken in the mid-1970s by important new measures to protect Aboriginal rights as well as changed attitudes towards the uranium discoveries, is to emphasize that they indicate the existence of a common purpose at the beginning between NT and Commonwealth objectives for the future development of the region. Such harmony weakened with the acceptance in Canberra of the Ranger Inquiry recommendations in 1977 (Australia, 1977) and widened into a divergence of opinion which was later to be demonstrated in the tone of NT submissions made during the preparation of the Kakadu Park Plan of Management (1). The NT government of today still views the town in its regional capacity as a potential centre for tourism and other functions, whereas, the Commonwealth, in line with its responsibilities for Aborigines and the Park as well as its cautious attitude towards uranium has, until very recently, seen Jabiru strictly in terms of the limited role allocated to it in the Ranger Uranium Environmental Inquiry.

The precise way in which Jabiru was developed involves a complex series of decisions and actions by Commonwealth and NT bodies which requires identification if any sense is to be made of present regional and local administrative arrangements (Stolz, Australian, 1 July 1983, and see figure 2). The various bodies and interest groups shown in the figure are located according to three levels of governance, and a distinction is drawn between those with an advisory rcle, government departments and instrumentalities, and other important groups such as the mining companies and representatives of Aboriginal interests. It is important to recognize that charts like figure 2 are not static. As a general rule the number of agencies and organizations playing a role in Jabiru has increased over time. In addition, the relative importance of such agencies can vary, depending, for example, on the stage of the town's development, changes in Commonwealth policies on uranium mining, the intensity of NLC activity, and so forth. Responsibility for the early planning of the town was given to the Australian National Parks and Wildlife Service (ANPWS) after its establishment in 1975, and in recognition of the fact that the Kakadu National

Park was itself in the process of creation in the same region. ANPWS, in turn, commissioned the planning consultants A.A. Health to prepare a town plan in 1978 and review the earlier feasibility studies. The plan was subsequently approved by ANPWS after consultation with federal and NT government departments and the three mining companies with interests in the town (Ranger, Pancontinental, and Noranda) (2). Certain environmental protection measures were also established for the development of the town and responsibility for constructing the settlement was handed over to the new NT government. The latter passed its own state legislation to set up the JTDA early in 1979 to 'plan, develop, construct, manage and control the town' (Stolz, Australian, 1 July 1983).

In terms of its own act, the JTDA was required to comply with the provisions of the federal National Parks and Wildlife Act of 1975 and the subsequent Plan of Management for the park. The Plan of Management was duly approved in April 1981 and includes a provision that the town site (on Commonwealth land) be leased to the JTDA by the Director of ANPWS. The head lease is for a forty year term and requires the JTDA to comply with the town plan approved by the Director, the relevant provisions of the Plan of Management, and the provisions of the Parks Act and its regulations. The interlocking complexity of this legislation together with a discussion of the relationship between the Commonwealth and NT Acts can be pursued at length in the study by Crommelin and Nicholson.

Further consideration will be given later in the chapter to company and resident attitudes about what may be a suitable model of governance for Jabiru when the discussion moves to examine the nature of local issues. Before this, however, it is necessary to outline some of the chief factors in the debate over future development options in the Alligator Rivers Region.

The Regional Debate

All three of the major regional issues in the region: conservation of the environment and attendant tourism in the National Park, Aboriginal rights and development, and uranium mining, can be identified as areas of national concern and account for low levels of regional autonomy. They are, in addition, of great concern in the NT itself and to varying extents are subject to both federal and state legislation, and it is unfortunate that a number of recent events have had the effect of exacerbating the differences rather than emphasizing the common interests of these two levels of government.

Evidence placed before the Ranger Environmental Inquiry suggested that the conservation of flora and fauna and Aboriginal sites in the region was essential because of the damage caused by visitors to the area and the potential threat of mining (Australia, 1977, 210). What has complicated the issue in a developmental sense is that the act of conservation, as expressed in the subsequent establishment of the Kakadu National Park, has greatly increased the pressures for large scale tourism in the region. Much of the existing conflict in NT and Commonwealth circles regarding tourism relates to how this pressure for access can be accommodated without damage to Aboriginal interests and the physical quality of the park itself. It is important to note the words of the Ranger Inquiry Report in this respect, and to recognize that decisions made in 1977 are open to reassessment at a later date:

> The regional centre should nor for the present be seen as a place in which tourists can stay. Its population should be strictly limited to those people who must live there because of mining activities. Tourist accommodation should for the time being be found outside the park or at one or two carefully selected places within it; the choice should remain with the Aboriginals and the park authority (Australia, 1977, 213 emphasis added).

Rather more problematical and of immediate concern is the future status of the 6000 sq. km of Stage 2 of the Kakadu National Park, and that to declare it for full protection will effectively prevent any further mineral exploration,

and make the 300 existing exploration leases null and void. According to press and other reports, (Sydney Morning Herald 15 August, 18 September 1983 and interviews ANPWS Staff, Darwin 1982), the central objective to safeguard the wetlands for wildlife could be achieved by declaring a conservative zone instead of national park but this proposal has met with opposition from doctrinaire elements in the ALP as well as conservation groups. From the NT government standpoint there are grounds to fear that recently announced plans to proceed with Stage 2 are being made in the absence of full consultations which could reveal the range of costs involved and of economic opportunities foregone.

The regional questions of Aboriginal rights and development have been extensively covered in early papers by Keen (1980) and by Coombs (1980), and in the ongoing series of reports of the Australian Institute of Aboriginal Studies' Social Impact of Uranium Mining project (3). It is an issue which did not come into prominence until the mid-1970s and was clearly considered to be of crucial importance in setting the guidelines for the establishment of Jabiru in the Ranger Inquiry (4). As Keen points out, 'The most important means of containing the social and environmental effects of mining is the welding together of Aboriginal land and the Kakadu National Park' (1980, 181), and this was achieved via a 100 year lease from the Aborigines to the Commonwealth government. The townsite itself is not included in the lands which were transferred to Aboriginal title and remains under Commonwealth ownership.

Of particular interest to the study of regional autonomy in the post-construction period at Jabiru is the involvement of Aboriginal organizations such as the Northern Land Council (NLC) and the Gagudju Association of traditional owners. It will be recalled that under the terms of the chief Acts governing development in the region, the NLC is empowered to negotiate agreements on royalty payments and to ensure that a wide range of Aboriginal interests are safeguarded. In many instances the NLC acts on behalf of traditional owners but, increasingly, it seems as though the Gagudju Association is prepared to negotiate itself on matters concerning its own interests. Circumstances have emerged where the Association has sought separate representation (such as the liquor licence hearings of 1983) or voiced a differing view (such as in the ongoing negotiations with Denison Australia about the Koongarra deposits). Although it is too soon to detect a clear pattern to these events, it is possible to suggest that there is a distinction emerging between the very low levels of regional autonomy experienced by outsiders from all ethnic groups which live in the town when compared to the position of the traditional owners. This encouragement to local Aboriginal groups is a major feature of the Fox Report and on present evidence is meeting with some success.

The question of uranium mining is also closely linked to Aboriginal and environmental issues in the region and it is only possible to selectively illustrate the complexity of the situation which has developed. An interesting dilemma as far as Commonwealth government opponents of uranium mining are concerned is the evidence that there is widespread Aboriginal support for new mines to be established in the region (Sydney Morning Herald 27 June 1983). Although this support is not unanimous, it is sufficiently representative to suggest a community of purpose between the mining companies and Aboriginal interests which confounds simplistic assumptions about Aboriginal opposition to uranium mining. Denison Australia are reported to have offered a large equity holding in the Koongarra project to Aboriginal groups, though critics might suggest this is simply a clever device to partially solve the problem of achieving the local equity levels required by Australian resource investment regulations. Even more dramatic was the recent report that the NLC might consider the possibility of starting an Aboriginal mining company with a national listing. Though these proposals may not be realistic at present, the message surely is clear that Aborigines are prepared to exercise the considerable powers given to them under the various Acts to secure a voice in regional affairs. However, as Jennett has stressed, 'Aborigines in the Northern Territory do not have the power to determine whether or not uranium mining will take place on their land', and considerations of 'national interest' pay little attention to an Aboriginal agenda of development priorities (Jennett, 1983, 134). Thus the real power of the NLC and other groups to determine the nature of future developments in the region is of a secondary order, and does not match the underlying influence of the mining industry and Commonwealth government.

The Local Debate

The central issue in the local debate about the future of Jabiru is the uncertainty surrounding the establishment of the additional mines at Jabiluka and Koongarra. This in turn rests on the shift in policy towards uranium mining which accompanied the election of an ALP government in Canberra in March 1983, together with structural weaknesses within the uranium export market itself (Owen, 1983). At the time of writing the Commonwealth government has just announced plans to restrict uranium mining in the region to the Ranger leases and it seems very likely that Jabiluka and Koongarra will not be allowed to proceed. The effects of this uncertainty during 1983 can be seen in a long list of parochial issues in the town and have already begun to cast doubts on the wisdom of adopting representative local government in the near future.

From the point of view of ERA Ltd., the company which effectively controls the Ranger mine, the likelihood of a moratorium on the new mines and the uncertainty which surrounded the signing of new contracts will affect the cost sharing arrangements for the town which had been under discussion with the other companies (5). There is also a reluctance to fund new community projects such as the floodlighting of the sports oval (6), or to consider the expensive provision of rental housing for the private sector. Existing uranium sales contracts expire in 1995 and one may presume that further capital investment in the town is conditional on new contracts being signed together with the granting of government permission to conclude them. There is already some evidence that private firms which had bargained on the early growth of a larger town are starting to leave Jabiru or are deferring the opportunity to move there (7).

The four domestic issues of public liquor outlets, a town motel, the status and housing of the Jabiru Aboriginal community, and certain criticisms of the early managerial style of the JTDA appear to have attracted most attention in the twelve months since the first phase of the town was constructed. Space will only permit the consideration of two of these issues which, in different ways, illustrate the concerns and frustrations of town residents and the sort of problems which could be faced by a future town council.

The question of the liquor licence applications in Jabiru is now something of a cause celebre in the Top End, as it has focussed attention on the differing priorities of a largely white mining community which is generally in favour of the provision of 'normal' outlets (8) as opposed to the NLC and the Gagudju Association who are highly apprehensive of the consequences of such an eventuality. The local merits of the case have been overlain by a constitutional wrangle about Commonwealth or NT powers to control the sale of liquor which, in turn, hinges on the validity of NT law or Commonwealth regulations under the park Plan of Management. The dispute seems to be legally 'resolved' by the recent gazetting of new regulations under the Parks Act by the Director of ANPWS, which has determined that future applications in the town must be approved by the Director in consultation with the NLC (Australian 20 August 1983). Whether this action can be considered as a special use of Commonwealth powers related to the sensitivity of the issue for Aborigines, or whether it is a forerunner of greater involvement by ANPWS in the affairs of the town is important, and materially effects the consideration of the governance transition.

The lengthy debate concerning the possible provision of a town motel provides another example of the potential for disagreement in domestic urban affairs which can result from externally imposed guidelines for the development of the town. At first examination, the problem appears to be one of financial feasibility linked to managerial difficulties as the park Plan of Management restricts the operation of such a motel to domestic and business purposes and excludes the possibility of tourism useage. Such a development is less commercially attactive than a multi-purpose motel and puts the onus on management to police the type of guests who may wish to stay. Whilst in favour of having a motel in Jabiru, the mining company is very cautious about the project, perhaps because it might be called on to bail out an uneconomic operation, and the NLC is in direct opposition to the idea (9). This prospect would seem to offer little encouragement to a town population of 1200 which has

few entertainment facilities other than the clubs and, importantly, does not take into account the fact that the Gagudju Association may well be interested in running a motel.

The Association, which already operates the successful motel at Cooinda, in the Park, might be prepared to build and manage the Jabiru motel as a part of its expanding commercial interests in the region (10). Were this to occur it would signal the start of something much more important than the motel itself, the close identification of local Aboriginal interests with the future of Jabiru. This is essential if the town is to attain workable levels of local autonomy, because of the necessary involvement of Aborigines in any future revisions to the Park Plan of Management, and it would mark a significant departure from the development experience of any other mining towns in Australia.

Prologue to an Advisory Council

The recent history of Jabiru has seen the construction of the first phase of development by mid-1982, termed the 'Ranger only' town, and the beginnings of community involvement in town affairs via the Jabiru Town Advisory Council (JTAC). The origins of this advisory group, and of the discussions about the establishment of full local government are to be found in a directive from the NT Chief Minister, dated 3 February 1981, to the Chairman of the JTDA (11). This directive included a request that a citizens liaison group be formed by the end of 1981 to advise on policy regarding the JTDA's municipal role, and that a form of fully elected local government be established within the framework of the Local Government Act by mid 1984. The importance of noting these dates and the nature of the Chief Minister's directive is that it pre-dates by twelve months attempts by the NT Labor Party to raise the question of elections in Jabiru in the Territory parliament (Lea and Zehner, 1983b). Indeed, it seems that the NT government was determined from the outset to secure the introduction of local government in Jabiru to obviate difficulties which had been experienced in dealing with other company towns and, perhaps, to retain a NT presence in what was turning out to be a closed mining town rather than a regional centre (NT Cabinet decision 1806, 1981). As if to emphasize this determination, the JTDA Annual Report 1979-80, which was dated February 1981 indicated that:

> Planning is underway to establish full municipal services in the town by the time construction is substantially completed with provision for citizen participation in the affairs of the town eventually leading to full local government representation (JTDA, 1981, 15).

Despite these intentions, progress toward active citizen participation in town affairs was not particularly noticeable until early 1982. There had been occasions when residents felt that they had little influence over what was happening in their community, the prime example being whether the town's hospital would eventually be equipped and run as a full hospital or a clinic. The JTDA office in Jabiru became the focus of popular frustration which revolved around the amount of information that was provided to the townspeople during the course of 1981 but, even so, there did not appear to be widespread demands for local government as much as a general discontent which ebbed and flowed during the construction period (12).

The action by Terry Smith, the NTLP Member for Milner, to propose an Amendment to the Jabiru Town Development Act in February 1982, which would provide three places for elected members on the JTDA, appears to have been the catalyst which mobilized the establishment of a citizen's advisory group of the type proposed by the Chief Minister some twelve months previously. In any event, meetings were held in Jabiru on March 31 (called by JTDA) and on April 15 (called by the Member for Tiwi) to discuss the issue of local government in the town. The April meeting was attended and, by all accounts, dominated by the presence of the Chief Minister who was instrumental in determining the form of advisory council which was eventually chosen. JTAC was to have five elected members (with the electoral boundaries defined as within 10 km radius of the

Jabiru Police Station), and three members appointed by the Chief Minister, with the Chairman of the Advisory Council to be chosen by the members from among the elected representatives (13).

An election was arranged as expeditiously as possible and, on May 22, five members were elected from a list of 15 candidates by a turnout of approximately half of the electorate (14). Despite the dominance of the mining company in Jabiru, where some 76 per cent of the households live in Ranger dwellings (15), only one of the newly elected Councillors was a Ranger employee. Another, the owner of a small business in the town, was the spouse of a mine employee. The fact that a majority of non-company members were elected probably reflects, first, that the Ranger households were less inclined to become involved because they were secure in the knowledge that their interests would be looked after by the company; second, that the electors knew that one of the appointed members of JTAC was to be a Ranger employee in any case; and/or third, that the members of the community who were not company personnel were the ones most interested in obtaining a voice in town affairs by standing for election to the Advisory Council or voting for non-company candidates (16).

Democracy and Public Participation: the First Twelve Months

The first meeting of JTAC took place on 16 June 1982 and, as might be expected, the tone and content of much of the first three or four monthly meetings were concerned with complaints by the elected members directed towards the appointees on the Council (the Chairman of JTDA, the NT Co-ordinator General, and the Ranger representative) and towards JTDA's Town Manager who attended the meetings as Secretary of the Council in a non-voting capacity. Although the substantive topics ranged from the question of the hospital and medical care, to the management of the community hall, to the schedule for mosquito fogging, the underlying concern seemed in most instances to focus on the perceived inadequacy of communication between JTDA management and town residents (17).

Nevertheless, by February 1983, the Chairman of JTAC summarized the events of the first seven months in quite positive terms in an article in the Jabiru Rag:

> Functioning in an entirely new area of concern meant working out methods of communication between JTAC and the Jabiru Town Development Authority and Government Agencies. Most of this preliminary work has now been done and I believe that a very happy working arrangement has been worked out ... Although we cannot claim to have been successful in all areas our representations have been satisfactorily answered (E.M. Main, JTAC, Jabiru Rag, 6, 2, 9 February 1983).

Interviews with JTAC Councillors, the Chairman of JTDA, and the Town Manager undertaken in February and July of 1983, suggested that relationships were less harmonious than was indicated in this passage from the town paper. Nevertheless it also appeared that an adequate level of communication had emerged despite a certain wariness on both sides.

An issue which appeared in the first months of JTAC's existence which did much to define both the extent and the limits of its influence was the unsatisfactory state of medical services in Jabiru. One of the five elected Councillors was also the town's resident doctor and, under his leadership, JTAC members initiated inquiries to JTDA, Ranger and, eventually, the NT Minister for Health about health care plans for the town. A meeting with a representative of the Minister for Health was arranged 'almost the next day' and that satisfactorily clarified the situation in a way which the contacts with JTDA and the Ranger Mine had not (18).

There were legal problems, however, concerning such contacts with a NT government department because, according to Section 25c of the Jabiru Town Development Act, as amended, JTAC's sole function was to advise JTDA on municipal matters contained within Schedule 5 of the Local Government Act. Thus its members in their role as JTAC representatives should not have been

contacting NT government agencies directly about other matters. Considerable discussion ensued which resulted in JTAC members being allowed to contact organizations other than JTDA if they did so as private individuals, with the provision that the Authority should be kept informed of such extra mural activity. Unfortunately, the NT Department of Health had transferred the town doctor almost immediately, an action which was reportedly justified as part of its normal policy of changing doctors in small communities every six months, but which was viewed by residents as a bureaucratic reaction to the doctor's criticism of the state of medical care in Jabiru (19). The net result of this exercise, then, was to affirm JTAC's right to contact other agencies directly without going through JTDA, and also to demonstrate that its influence did not carry much weight with government departments other than its role as a conduit for criticism of the bureaucracy.

During its first year of office JTAC began to organize and sponsor community activities and events, another activity which was not strictly within its role as defined by Section 25c of the Act. In this case, however, the Council's initiatives were accepted as legitimate and worthwhile by most parties and these included the organization of an Anzac Day ceremony, a town birthday party, and a Community Awareness Week. The latter was considered to be particularly successful in generating community involvement and featured exhibits by many resident groups and the main employers in the town, an art competition, the official opening of the Community Hall, and a civic reception (20).

Another major involvement of the Council in 1983 has been an attempt to define the propsects for 'normal' local government in Jabiru and the timetable by which to achieve it. Following an initiative from an elected member of JTAC early in the year, the Council established a sub-committee to consider this issue with the intention of preparing a submission for the Chief Minister in July (21). In the meantime, the decision by the JTDA board early in 1983, at the request of ERA, to close down the Darwin office of the Authority provided a logical catalyst for an overall review of its functions (22). The review, to be conducted by the Chairman of JTDA, was also to consider those activities which might eventually be delegated to the elected council and the manner of a possible transition (23). The parallel creation of the JTAC sub-committee to work out a timetable towards transition thus did not initiate those discussions, but it did add a certain amount of pressure to maintain an active public debate on the issue.

It may be concluded on the basis of our interviews undertaken in mid-1983, however, that there was litle consensus about the urgency of this debate. ERA, for example, was reluctant to consider a situation where millions of dollars of community assets (e.g. headworks and infrastructure) which had been paid for by the company and held in trust by JTDA, a statutory authority, might be transferred to an elected body prior to the repayment of the relevant loans. In addition, it was also possible to detect the view that an elected local government might be superfluous in a small, one-company, mining town. Further, although current uncertainties have put an end to expenditure on new facilities, the company considers that it has not done a bad job in Jabiru and that there is little to guarantee that conditions could be maintained at present levels were they to become the responsibiliy of an elected council (24).

A representative survey of Jabiru residents has not been conducted for this study but the consensus of those interviewed suggests that there is little pressure at present for a transition to local government. It is simply not an issue for the many residents who have only a limited commitment to Jabiru as a permanent home and it is evident that a considerable number prefer the present arrangement of a company/JTDA administered town (25). Even within JTAC itself there was not complete agreement in mid-1983 that the town should move towards elected local government by the target date set by the Chief Minister of mid-1984. Doubts were expressed about the ability of such a council to handle the complexity of town affairs and whether present arrangements might not be more appropriate in any case, given the likelihood that the other two companies would not be granted permission to open their mines. There was the question, too, that JTDA might not have the will nor conviction to go through with the transfer. In the words of one Councillor, 'It's a bit of a farce. If they

(JTDA) can't hand over the running of the (Community) Hall to a committee, how do they think they are going to hand over to local government?' (26). However, according to very recent information (November 1983) the NT Government has now agreed to the delegation of certain JTDA functions to an executive council to be called the Jabiru Town Council (JTC). The timing of such a transfer is to be decided by a joint JTDA/JTAC working party and the new enabling legislation placed before the NT parliament during the March 1984 sitting. It seems likely that this delegation of functions will not include the power to determine rates nor the establishment level for Council employees. It will, however, give Council control over the expenditure of monies and the appointment/dismissal and management of employees.

It has been noted at several points in this paper that although Jabiru is primarily a one-comapny town, it does not operate in a vacuum and is subject to a significant amount of outside influence. One of the most important of the outside agencies is the Chief Minister's Office in Darwin and much of the detectable pressure for the transition stems from this source via the Chairman of JTDA who is, himself, a staff member of the Office. It appears reasonable to conclude that the Chief Minister is fully aware of this and many other detailed aspects of the situation in Jabiru and must also be aware of the firm opposition expressed by ERA/Ranger in the past (27).

Another body with major interests and responsibilities in Jabiru is ANPWS which can be distinguished by its statutory concern for the needs and welfare of the traditional Aboriginal owners. This task is complicated by the fact that, although the views of the traditional owners towards matters such as mining and tourism are theirs and theirs alone to decide, ANPWS is charged with the preservation of the various natural and man-made treasures in the Park (28). A move towards elected local government in Jabiru would not, on present evidence, be a positive development as far as ANPWS is concerned because JTAC Councillors appear to favour the growth of the town via increased mining and tourism facilities (29). This distinction may no longer apply, however, because recent Commonwealth government announcements about new tourism investment in the region may result in changes which will allow the development of some tourism services in Jabiru.

It is more difficult to predict the consequences of local government for the Agorigines and their representative associations, the N.L.C. and the Gagudju Association. An elected council which actively sought the expansion of the town would meet with opposition from the N.L.C. (30), but might, at present, be accepted by the Gagudju Association in respect of tourism developments if Aborigines were involved in a meaningful way (31).

On balance, JTAC's first year in office can be viewed as successful in the way it has been able to define a role for itself within the community, in its initiation of community awareness, and in the way it has continued to focus attention on the issue of citizen participation (or the lack thereof) and on how a governance transition might proceed. There appear to be several possible scenarios for the future development and management of the town which depend, in turn, upon a range of external and internal influences which can be predicted with varying degrees of confidence.

Some Future Scenarios

It is important to acknowledge the central importance of the Commonwealth in determining the regional issues of uranium mining, the World Heritage considerations of the Kakadu National Park, and the general question of Aboriginal rights. We believe it is only remotely possible that ERA will be prevented from fulfilling its present contracts (which run to 1995) and unlikely that the company will not be allowed to negotiate new contracts based on the present Ranger leases. It is assumed, therefore, that Jabiru will exist as an important mining community for at least the next two decades and probably for considerably longer.

During this time scale four basic development options appear to be possible:

(1) A continuation of the present Ranger-only town with no appreciable additions to (or deletions from) the employment base;

(2) A Ranger-only town supplemented by tourism-related employment;

(3) A change in Commonwealth policy on uranium that permits the mines at Jabiluka and Koongarra to proceed and which results in the workforce of at least the larger of the two (Jabiluka) to use Jabiru for residential development; and

(4) The combination of multi-company mining and considerable tourism development based on the town.

Of all the options, the first, which represents the status quo, is least likely to lead to fully elected local government and is the one closest to the Ranger Inquiry recommendations. It is also a closed mining town and subject to the considerable criticisms which have been directed at such communities. The other possibilities all involve varying degrees of concurrence or departure from the guidelines laid down in the Park Plan of Management and, because of the diversity of employment offered, demand a broader and more representative form of governance. Thus the practical possibilities for fully elected local government in Jabiru depend on the likelihood of wider development opportunities in the town but the determining influences, as far as the latter are concerned, are mainly located outside the Northern Territory. So it may be concluded that unless the introduction of wider employment opportunities (especially via the private sector) is viewed positively in Canberra and in corporate headquarters in the eastern States, full local government is unlikely to eventuate (32). This conclusion probably holds true regardless of the present wishes of the NT government and is a good example of the low levels of autonomy which can prevail in Australia's newest State.

The town development authority model of governance which has been pioneered in Jabiru, and which is unique in Australia, has resulted in several outcomes which may be of wider relevance for other major resource projects. Its existence as a separate tier of management interleaved between the residents, the company, the NT government departments, and Commonwealth agencies appears to be primarily functional to the interests of mining capital in the way in which it has taken the heat off the company in domestic urban affairs. Whether this role is likely to be as beneficial from the resident's perspective, now that the construction phase seems to be over, is unclear and depends to a large extent on its interrelationship with the new Town Council.

The JTDA was originally intended as a 'sunset' body in a multi-company town development situation, to be replaced in due course by local government. The possibility which is now emerging is that it will be required to administer the town on a permanent basis in conjunction with the Jabiru Town Council. Such an arrangement permits the continued involvement of the NT government in the direct administration of the town, and could, in the future, include the representation of Aboriginal interests (33). This scenario is probably realistic in terms of the special conditions which prevail in Jabiru and points to the necessity of adopting administrative arrangements in resource developments which match the changing nature of the political and social environment in rural Australia today.

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Footnotes

1. See, the letter from the Acting Director of the Department of the Chief Minister, Darwin, dated 26 May, 1980, and published in Australia, Representations Received in connection with the Plan of Management for the Kakadu National Park, Canberra, AGPS, 1980.

2. The Koongarra leases were bought by Denison Australia Ltd from Noranda in October 1980.

3. See the series of A.I.A.S. reports to the Minister for Aboriginal Affairs on the Social Impact of Uranium Mining, starting with the period, 1 April 1979 to 31 September 1979, until 1983.

4. Interview with Professor Charles Kerr, Ranger Uranium Inquiry Commissioner, at Sydney University, May 1983.

5. Interview with management of Ranger Uranium Mines Ltd, at Jabiru, July 1983.

6. Interview with councillors of JTAC at Jabiru, July 1983.

7. A plant hire firm has recently left the town and there is evidence that few private sector firms are viable without subsidies from the mining company.

8. Interview with JTAC councillors, Jabiru, July 1983.

9. Interview with NLC officials, Darwin, July 1983.

10. Interview with the General Manager, Gagudju Association, Darwin, July 1983.

11. Information provided by the Chairman of JTDA, July 1983.

12. Interview with JTAC Councillors and JTDA officials in Jabiru and Darwin, February 1983 and July 1983.

13. The 10 km radius was chosen to include Jabiru East which still included 40-50 households and also includes the ANPWS dwellings near the Kakadu National Park Headquarters west of Jabiru. A telex from JTDA to ERA Ltd. dated 23 April, 1982 indicated that the Chief Minister would nominate the Chairman of JTDA, the Co-ordinator General, and an ERA nominee as the three appointed members of JTAC.

14. Interview with JTAC Councillors, February 1983. An indication of the haste with which the election proceeded is the fact that not one of the names of the five elected residents appeared in the same form (spelling, initials, etc.) on the pre-election announcement of the full list of 15 candidates and the subsequent announcement of results!

15. Accommodation statistics for November 1982 provided by JTDA Town Manager.'

16. Interviews with JTAC Councillors and JTDA officials in Jabiru and Darwin, February 1983

17. Interviews with JTAC Councillors and JTDA officials in Jabiru and Darwin, February 1983 and July 1983

18. Interview with JTAC Councillors, February 1983

19. Interviews with JTAC Councillors February 1983 and July 1983

20. Interviews with JTAC Councillors and JTDA officials in Jabiru and Darwin, July 1983

21. JTAC Agenda Item No. 3(r), Meeting No. 8, 'Timetable Towards Local Government'

22. The Darwin office of JTDA was largely responsible for negotiating and co-ordinating construction during the initial years. Due to the uncertainty regarding the establishment of the other mines, ERA saw no further need to maintain the existence of the Darwin office

23. Interviews with the Chairman of JTDA in February and July 1983

24. Interview with Ranger personnel and the Chairman of JTDA in Jabiru and in Darwin, July 1983

25. Interview with Ranger, JTAC and JTDA personnel in Jabiru, July 1983

26. Interview with JTAC Councillors in Jabiru, July 1983

27. Interview with JTDA Chairman in Darwin, July 1983

28. Interviews with ANPWS personnel in Darwin and in Jabiru, February and July 1983

29. This research has not touched on the grounds for the conflict between residents and ANPWS which may have been created by ANPWS Regulations. These, for example, forbid Jabiru residents to to own cats or birds or to plant a range of non-indigenous shrubs and plants in their gardens.

30. Interview with NLC personnel in Darwin, July 1983

31. Interview with General Manager of Gagudji Association in Darwin, July 1983

32. A further factor limiting the adoption of full local government concerns the status of the 40-year head lease over the town site. Legal opinion sought by JTDA suggests there are several reasons why the Development Authority should continue to exist in the future as the holder of the lease (information supplied by the chairman of JTDA, November, 1983).

33. The NLC was originally offered two positions on the JTDA board by the NT government in 1978 but declined to take them up. An interview with NLC personnel in July 1983 indicated that this is now thought to have been an incorrect decision. The question of Aboriginal representation on JTAC is under discussion.

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TAKING THE 1981 CENSUS: ABORIGINES IN THE NT

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To determine the number of Aborigines in the Australian population is a difficult, perhaps an impossible, task and yet over the years Australian statisticians have attempted it. The statistics and how they have been affected by the methods of enumeration and by the definition of Aboriginal have been reviewed in LR Smith's book The Aboriginal Population of Australia.

It is an underlying theme in his discussion that the method of collection is as important in shaping the result as the definition of criteria of Aboriginality.

For many years, Aborigines were not enumerated in censuses of the Australian population because section 127 of the Commonwealth constitution forbade the inclusion of 'aboriginal natives' in the population count. Their numbers were, however, estimated from time to time. But those thought to be of half Aboriginal descent or less were enumerated - at least nominally - even though there is no indication that the census people ever attempted to develop special methods for enumerating those who lived tribally (Smith, 1980, 34-35). The practical problems of enumerating people in this condition - whether full or part Aboriginal - seemed to have become unimportant by 1966 when it was believed that the process of Aboriginal migration into setttlements where the numbers could be enumerated in the ordinary way or estimated accurately was virtually complete.

Amendments to the Constitution, effected by referendum in 1967, meant that at all consuses from 1971 onwards Aborigines would be enumerated with the general population but required to indicate their 'race'. Smith has discussed the complications which have survived by retention of that term; what matters here is that the census has normally been carried out by self-enumeration and that the census people have always sought social data about things such as family size and relationship, income, occupation and employment. By 1976 it was becoming evident that the social data were not being accurately obtained from the many Aborigines who were unfamiliar with white concepts, for example about family relations, and whose knowledge of English and of the terminology of government forms was inadequate to the task of self-enumeration.

In addition, by 1976 it appears to have been recognised, at least unofficially, that Aborginies were still not being fully enumerated. By then the outstation movement in some parts of the Northen Territory had begun to reverse the trend - arguably never nearly as complete as had been believed in 1966 - of population movement into settlements. And even in settlements such as fringe camps it was debatable whether all people had been enumerated by those filling in the forms. The normal methods of self-enumeration had to be modified if more accurate data were to be obtained and under-enumeration avoided.

In 1976, the Northern Territory office of the Bureau of Statistics pioneered new methods for the census of the Aboriginal section of the population, methods which were improved for the census of 1981 and applied in Western Australia and South Australia as well as in the Northern Territory. The Territory office of the Bureau invited NARU staff to observe preparations for the census in the Territory and what follows is a report based on the observations made.

The methods adopted were similar to those used in the observations of the election in the Territory in 1980, except that in order to comply with the rules laid down in the legislation, observing staff were not present when census takers were collecting data - they were permitted to view polling in the election - and, since the census does not entail any political campaigning, there was no public activity in Aboriginal communities in the lead up to the census on which reports might be made as they had been made in the election (see Jaensch and Loveday, 1981 for reports on electioneering in the rural electorates). What we observed therefore were preparations for the conduct of

the census, preparations which not only brought problems into view and provided mechanisms for overcoming them but also threw into sharp relief the difficulties encountered by administrators in tranlating census questions to the context of Aboriginal society in various kinds of settlement and in more remote outstation locations.

There are different ways of carrying out a census of population and the Australian method is that of collecting the data in the field (Cameron, 1981, pp1-2). The principal characteristics, as described by the chief statistician, are two:

> dependence on the Division of National Mapping for very detailed maps on which precise boundaries can be drawn of exactly contiguous geographical Districts, [and]
> dependence on geographically dispersed personnel who, through an hierarchial chain, can be made responsible for covering the whole of the country.

It is understood that the 'covering' is done at the one time so that the census has a precise date (30 June 1981) and that the same data are obtained from or about all individuals in the population - data about birth date and place, residence, sex, occupation and so on. The 'dispersed personnel' are otherwise described as collectors: some days before 30 June each collector distributes the official form to each household and from 1 July onwards collects the completed forms. The 'householder' fills in the form on 30 June and the whole process is described by the term 'self-enumeration' although, of course, the typical situation in the nuclear family would be that one person would fill out the form for all the people in his or her family.

National Mapping does, of course, provide the detailed maps and precise boundaries needed for the census, but that does not overcome all the problems. The most intractable, at least in the Northern Territory, are the lack of specific information about the location of the outstations of settlements, now the place of residence of large and growing numbers of Aborigines, the mobility of people between different communities and the ease with which individual dwellings and some outstations are moved or deserted and reoccupied. Precise boundaries drawn on a map in ignorance of the location of outstations may have the result, as it did in 1981, of separating closely linked population groups and complicating the task of the collectors.

The other characteristic, hierarchically controlled bureaucratic collection also creates difficulties for Aborigines. Many are not literate in English, at least the English of official forms, especially those in which the words have been shaped by legislation. Some questions are also hard to answer because the concepts underlying them are unfamiliar to Aborigines and foreign to their way of living.

Furthermore, many Aboriginal communities have come to resent and resist the uninvited intrusion of whites, whether to collect census data or for other purposes. In addition it is widely recognised that if white collectors are given the task of obtaining data about Aborigines which the Aborigines are unable to provide for themselves, the data is often so shaped by mutual misunderstandings that it is not comparable with apparently similar data obtained from white citizens - to put it no more strongly.

Experience in 1976 suggested ways of overcoming these difficulties. To win the consent and cooperation of Aborigines and to minimise misunderstandings the Bureau

> enlisted the help of leaders of the Aboriginal community. In certain areas identified in consultation with Aboriginal organisations, communities will be enumerated by Aboriginal interviewers, replacing the standard self-enumeration technique (Cameron, 1981, 5).

In other words, the 'dispersed personnel' would be interviewers, not collectors, and Aborigines, not whites, in carrying out the census in Aboriginal communities.

The other difficulty, that the standard form is inappropriate for Aborigines, was met by composing three separate forms from it. One of these, the dwelling details sheet, would be filled out by the interviewer collecting data partly by observation ('material of outer walls'...) and partly by questioning the householder if at a house ('is this dwelling rented?'). Another, the personal details sheet, could be completed only by obtaining data in interview with an adult member of a family group and the third, the community details sheet, was to be filled out by the interviewer recording each dwelling in a community, each person in each dwelling and other details obtained by inspection or from the interview to fill in the personal details sheet. Some data could be collected on these sheets which could not be collected on the standard form. For example, although interviewers were instructed to 'try to enter westernised relationship' of one person to another in a family, they were also advised to accept the relationship given by the person being interviewed. If a man with more than one wife did list other wives and not describe them as sisters, aunts or something similar, interviewers were instructed to 'record the wife he married first as "wife" (box 1) and the remaining wives in "other" identifying them as wife 2, wife 3 etc.' (ABS, Northern Territory Office, Census 81, How to fill out the personal details sheet). Tribal marriage - that is, stated union - was accepted as such even if it was not marriage in the legally recognised European sense.

These sheets will call for further comment below; two additional points about them must be noted. In their simplified form, they could, as it turned out, be filled in by some Aborigines who presumably would have found the standard form too daunting. And, however, filled in, the details from these three separate sheets were aggregated and transcribed onto the standard forms in Darwin, the standard forms then being transmitted to Melbourne for data processing along with all the other forms filled in during the census. In the course of the transcription, information - for example on family structure - that could not be passed on to the standard form prescribed in legislation was retreived locally.

This system of enumerating the Aboriginal population may be described in more detail under three general headings - organising and training the 'dispersed personnel'; informing Aboriginal communities about the census and making arrangements for enumeration in them; the appropriateness of the questions in the forms - a subject for which our evidence comes from our attendance at training sessions, not from a study of any completed forms or from attendance at interviews when the data were being collected.

Of course, for the census of the generality of the population, something may be said under each heading. Collectors must be organised, provided with the necessary papers, given some instruction in their duties and supervised in carrying them out. The 'group leader' who coordinates the work of a team of maybe a dozen collectors and links their work back to regional headquarters is a key person in what Cameron describes as the 'hierarchical chain'. All citizens, not just Aborigines, have to be told that a census is coming and advised of their obligation to provide the data sought from them and special difficulties of access, cooperation and understanding, not unlike those confronted in Aboriginal communities, are bound to arise, for example with non-English speaking migrants. And finally, for many people, not only migrants and Aborigines, the wording and layout of questions on the standard form undoubtedly present some difficulties and evoke misunderstanding.

Organisation and training

In the past it has been customary to rely on the police to act as census collectors in remote localities in the Australian outback. But in the Northern Territory it has been recognised for some years that in many parts the Aboriginal population is reluctant to provide police - or for that matter other locals, such as station managers - with the kind of information sought in the census. In addition many Aboriginal communities are in locations remote from police and cattle stations and have contact with white society only through

other administrative channels, for example, the education system. A new system was therefore devised and in 1981 the basic principle in the Territory was that Aborigines should be chosen as interviewer-collectors for all distinct Aboriginal communities, including the community on Bagot Aboriginal reserve in Darwin and that police would be used as collectors only for cattle stations where there were few Aborigines or none at all. Letters to pastoral properties in March and April sought estimates of Aboriginal populations in June and, if more than 60 to 80 people were expected to be at a given place, the enumeration was to be done by Aboriginal staff if it could be arranged.

The employment of Aboriginal collector-interviewers was based on three considerations:

- experience in 1976 had shown that both the census itself and the Aborigines employed benefited from their involvement;
- the strength of Aboriginal councils had grown since 1976 and it was no longer possible to conduct the census accurately or efficiently without their cooperation or participation; and
- most Aboriginal settlements now serviced a complex of outstations which could be visited only with difficulty, if at all, by outsiders without Aboriginal approval and the help of guides and interpreters (ABS Report, by D Black, 29 July 1981, 2).

The first steps to organising the census were taken in June 1980 when ABS held a preliminary meeting with the Technical and Further Education (TAFE) section of the NT Department of Education to arrange for help with census education and publicity in the larger Aboriginal communities which, in the event, numbered twenty-five out of about sixty communities in which enumeration was to be carried out by Aborigines. Similar help had been given by TAFE in the electoral education campaign mounted before the NT election of June 1980. TAFE collected some materials that would be needed for publicity and preliminary arrangements were made for translating material into Aboriginal languages. But for some time afterwards very little happened; time seemed to be running out and 'Canberra' seemed to be reluctant to commit the necessary funds, although a meeting of state census supervisors was held down there in November 1980 on that subject.

In principle, TAFE's adult educators were not involved in the 'operational' work of the census, that is, in distributing and collecting forms and interviewing Aboriginal respondents. It was at first proposed that they would be available to publicise the census in their communities, but it was soon recognised that they could give invaluable assistance in the recruitment and subsequent training of Aborigines to carry out the enumeration. Inevitably they were caught up in more operational duties - not only in educating their communities about the census but in 'supervising' and helping the Aborigines in conducting the enumeration (based on interviews with TAFE personnel and on the ABS Report by D Black, 28 July 1981, 1).

The next major development in organising staff for the census was to bring the adult educators together in four centres, Alice Springs, Nhulunbuy, Katherine and Darwin, to explain to them the work they would have to do. These meetings were held in March and April 1981. The two Census Field Officers of ABS (Dan Black and John Parker) explained the work at these meetings. Those who attended included not only the adult educators and one or two other people such as head teachers from communities which had no adult educators, but also senior TAFE staff, in particular the regional coordinators for the appropriate region. Not all of those chosen for the work were able to attend - in Alice Springs, for example, five of the twelve adult educators and teachers were unable to do so. The work proposed for the adult educators is indicated by the agenda for the Darwin meeting, attended by the observers from NARU: after a general outline of the 1981 census, there were sessions on the role of the adult educators, on publicity, on the interview schedules and on administrative details.

In general, the adult educators were 'cautiously cooperative'. Some appeared to us to be sceptical about the appropriateness of even the special forms in Aboriginal communities. Some were reluctant to do work which was not officially part of their duties, understandably given that some school principals - whose authority over adult educators was contested anyway - disputed their allocation of time to the work.

In addition, many adult educators made it plain that they already had a substantial work load and would have to drop other programs if the census program became too demanding. Some also doubted whether Aboriginal councils would cooperate and did not look forward to negotiating with them to win that cooperation. Depending on local circumstances, some were consequently more cautious than others in giving promises about what they could do to help the census people.

The adult educators were not, of course, 'on their own'. The Census Field Officers were to visit each adult educator or other helper well before the census was to be taken to help publicise the census, to finalise the selection of the Aboriginal collector-interviewers, to help with their training and to give on-the-spot help and decisions about unforeseen local problems. In addition Census Field Officers went to a number of communities where there were no adult educators - about half of the sixty - and chose and instructed individuals, often local school teachers or social service officers, to carry out the enumeration. NARU observers accompanied Census Field Officers on visits of both kinds, but only in the Top End. These visits, preceded by letters of explanation and telegrams specifying the time of arrival, by plane and surface vehicle, took several weeks; meanwhile at base in Darwin publicity material, such as posters, had been prepared and printed, explanatory notes had been prepared for helping adult educators train collector-interviewers in their work, census forms were sorted and packaged for despatch to the distribution points, cassette tapes were made in a number of languages to publicise the census and explain what was to be done.

The Territory office of ABS did not expect its arrangements to follow the general principles exactly in all communities and it allowed for special arrangements to be made by the Field Officers as they seemed to be necessary in order to get the work done. For example, it proved to be impossible to enrol Aboriginal collector-interviewers in a few large communities in which adult educators or their equivalents were expected to be able to make the basic preparations.

Their efforts were apparently thwarted by local politics and in the end knowledgeable local whites had to conduct the collection-interviews as best they could, drawing their information not only from interviews with Aborigines but, in one or two instances, from the records of other administrative institutions - a procedure strongly discouraged by the ABS and accepted only as a last resort. In the smaller communities where there was no adult educator or equivalent, it was sometimes impossible to give the conduct of the census to a local competent Aborigine. At one cattle station, for example, where there were competent Aborigines, it took considerable discussion before the white manager understood that the ABS wanted the two Aborigines to conduct the enumeration. Even then the outcome was that two teams were created to carry it out, each consisting of one white person and one black person - all four of them male. It was the best that could be negotiated. At another station, run by Aborigines, no whites were present when the team arrived and the Aborigines were at first somewhat incredulous that they were actually being asked to do it themselves. Since they were running their own cattle station successfully, it did not take long for the community to settle on a capable person to do the work. As this example suggests, things did not always turn out disadvantageously when they were not quite what was expected: when publicity material arrived 'late' but just before the enumeration it had a greater impact than if it had arrived as planned weeks before the enumeration. The things that could 'go wrong' included telegrams being sent to the wrong place, inability to find someone to give a particular translation of material to be distributed by cassette, the late arrival of the video cassettes intended for local showing on machines in Aboriginal communities, the death of an Aborigine at one place which resulted in the dispersal of the community.

The Bureau relied on several other departments and government agencies for help - the Australian Electoral Office, the Department of Aboriginal Affairs, the NT Police, the NT Department of Education, the government printer, the Summer Institute of Linguistics, the Institute for Aboriginal Development in Alice Springs, the Migrant Education Centre - and all won its praise for the cooperation. Occasionally 'communications broke down' when someone was ill, unexpectedly transferred or on leave but these are the normal incidents of a large organisation. The Transport Workers Union strike delayed the return of completed forms to Darwin but by the end of July only two places had not sent them in. A more systematic problem for the future is that the Education Department is now moving to a semester system which gives a long vacation break at the conventional date of the census - 30 June. Many Top End Aboriginal communities take their holidays at this time, instead of December during the wet, and disperse beyond the reach of normal means of communication. Several communities arranged that their people would be enumerated before they 'went bush' and the ABS made the necessary arrangements.

The administrative flexibility of ABS in Darwin probably minimised the effect of untoward accidents on the census in the Territory. The special arrangements made at least ensured that few people were uncounted and from that basis it is possible to say flexibility minimised loss. A survey after the census to check for underenumeration was considered but rejected on balance as disadvantageous when underenumeration was believed to be low. A survey, entailing a return visit to a community, would not only imply that the people were not trusted after all but would also be pointless if population movement was high at a given place. The observing team did however hear about one place where two small outstations were so inaccessible that they could not be reached and so were not counted and of another council which, anxious not to suffer financially from underenumeration as it believed it had in 1976, arranged for a special check of its forms and found several families which had been missed in the main count of people. In this instance the flexible arrangements and the employment of local people with local knowledge were clearly vindicated.

Publicity

Some aspects of publicity have already been mentioned and perhaps the most important thing to be said is that it was not simply a matter of informing people that a census would be held but of winning local cooperation and of providing a measure of education concerning the purpose of the census. Although the Census Field Officers made a number of publicising visits to the smaller Aboriginal communities, much of the work, especially in larger communities, was carried out by the resident adult educators of the TAFE branch of the NT Department of Education.

Posters, letters, cassettes, slides and a film to help the publicity drive were prepared by the TAFE Branch and the Bureau. Some material arrived only just in time and in general since the work was carried out just before enumeration its impact was high.

Sixty sets of slides and accompanying taped commentary which told the story of the census were made, each set containing a dozen slides showing such things as a group of Aborigines with an adult educator, an Aborigine filling out a census form, maps of the Territory, photos of outstations, cattle stations and Darwin, teachers counting children and other similar activities which suggested what kind of a thing the census is. The commentary, translated into six Central Australian languages and a number of Top End dialects, emphasised that the census was 'about people' - all people, whether Aboriginal, Tiwi, Torres Strait Islander or non-Aboriginal, who live in Australia. It explained that the census person would ask questions about family, house and work as well as count the people. The explanation was that it would help government and 'your own Councils' 'to decide where schools and health Centres will be needed' if they knew how many people are living in each community and town. 'They can see where they will have to build more schools and train more Aboriginal teachers', or provide more housing, hospitals, radio transceivers and roads.

The letter made the same points more briefly and emphasised that it could be used not only by government but also by local community groups. The Bureau also explained in it that the two Field Officers would shortly visit communities to enrol local Aboriginal people to carry out the census.

The set of eight instructional booklets produced by the Bureau for the training of people employed to carry out the census were not part of the publicity material, but they had a publicity effect because the people being trained passed on information from them about the census to the people in their communites. In the Centre, one of the Field Officers (John Parker) went on the Aboriginal radio, CAAMA, to publicise the census. The total cost, over $1 million, was much higher than the cost of publicity in 1976.

The Questions and the Forms

As noted above, three of the eight explanatory booklets described how the personal details, the dwelling details and the community details sheet should be filled out. In addition, a fourth booklet gave an account of why the various questions were being asked. For example, the question asking what relationship person 2, person 3 and so on had with person 1 in a family group was explained as helping 'to identify different types of family groups within different households'. That particular explanation was succinct, accurate and comprehensible although the question itself was apparently open to misunderstanding, as we shall see. It is not easy to say the same about the explanation of the question about 'employment last week'. It would elicit information needed 'in the study of manpower resources, as well as the participation of particular groups in the labour force'; in addition, 'establishing levels and location of unemployment also assists both public and private welfare agencies in providing services'. The language used here is so complex that it suggests the person writing the explanation felt he was walking on 'political eggshells'. If anything it obscures what it sets out to explain and, if it is recalled that the figures will not be produced for a long time after the census is taken, perhaps too long to be of much value to welfare agencies, the explanation has a somewhat deceptive edge to it. Whether these subtleties would be appreciated by many Aboriginal communities is another matter.

At all of the meetings which the Census Field Offices held, whether for adult educators or for the smaller individual communities, there was some discussion of the meaning of the questions, rather than of the reasons for asking them. In general, these discussions were 'educational' rather than 'critical'; that is, adult educators or people who were to conduct the interviews tried the questions out, as it were, in discussion to make sure they understood what was required. In a few instances, there may well have been some dissatisfaction, some sense that the questions were open to different interpretations, ambiguities and so on or failed to get the data called for. To the extent that this occurred the discussion passed from the 'educational' to the 'critical' but it was impossible for the observers to say when one process was replaced by the other. The Census Field Officers who had to explain the questions seemed satisfied that all doubts had been laid to rest and that consistent answers would be obtained from the questions. It is understood that the answers obtained did not upset that expectation, though we have no way of independently judging the matter.

It is nonetheless worth reporting some of the discussion of the census questions from the training sessions if only to indicate the nature of the difficulties faced by the Bureau in designing questions and in training staff to administer them and by the staff in collecting answers to them.

The 'personal details' sheet and its accompanying explanatory booklet may be taken first. Each person in the census was to have his or her own personal details sheet, but the interviewer was to obtain the details for each person in a 'household' from one person, the contemporary equivalent of the one-time 'head of household', who was known as 'person 1' for a given numbered dwelling. Each other person in the household was to be given an arbitrary number and in question 6 the relationship of each of these to person 1 was to be specified,

one person to each sheet. Question 6 offered seven options: wife, husband, son, daughter, niece, nephew, other (specify). If person 2 was the husband of the respondent (person 1) then the husband box was to be ticked. But it was possible to misunderstand this in at least two ways, firstly by confusing white relationship terms such as uncle and nephew and secondly, by reading question 6 as asking for a full family structure so that a person with a wife and two children might tick the boxes for husband, wife, son and daughter.

If this did happen in the field, it was possible to 'sort it all out' in the process of transcription. The forms returned from Aboriginal communities had to be transcribed on to the standard forms before being sent to Melbourne for coding and analysis. The transcription was carried out in Darwin and the Bureau arranged the process to ensure that confusions of these kinds were removed as far as the data permitted at the time of transcription when the personal details sheet could be checked not only for internal consistency but also against the community details sheet.

Some confusions could probably not be removed; others that might have been expected probably did not occur. Age - question 5 - is notoriously difficult for Aborigines, especially the older and more traditional, and uncertainty about age could probably not be removed. The instruction was to estimate age by 'relating to some local historical events or by comparison to someone whose age is known' where a person did not know their own age. Duration of marriage (question 9) and address one year and five years ago would have suffered from the same uncertainty about time and dates. Address - questions 11, 12, 13 - was another source of possible confusion which was probably not wholly removable. The confusion could arise if 'usual address' was taken to mean 'home place' which, for traditional Aborigines, might well be land or a place at which they had not 'usually' resided for some time. This could easily be made more complicated if people at a given place which was not their 'home place' were recorded as 'visitors' and counted back to their 'home place'. The Bureau believed it gathered enough data on this point to be able to correctly 'place' people including visitors in the process of transcription.

Matrimonial status, on the other hand, probably did not result in much confusion or inaccuracy, even though at first sight it seemed likely to be a difficult subject for the more traditional Aborigines. The basic instruction was that 'Tribally married is married. A person is married if he [or she] considers himself [herself] to be married. Although there is no formal marriage or divorce ceremony try to obtain the best reply to each situation'. Confusion was minimised and probably removed, in other words, by recognition of de facto relationships which are not officially described as 'marriage' relations in white Australian society even though there too they are officially recognised for some purposes and widely accepted socially. The cost therefore was to introduce an ambiguity into the definition of the term 'marriage' used in the census.

Questions 14a and 14b seemed likely to cause minor confusion since it was possible to tick both boxes in reply to the question whether English or some other language was spoken at home.

Question 19, 'income usually received each week', was open to misinterpretation or simple error by people who receive fortnightly pay cheques or whose social security and other cheques come in at different times or for different periods.

The Bureau asked for 'total income' from all sources including the sale of artefacts and assorted social security benefits and it took the view that the data obtained could be calculated back to a weekly figure provided the person listed the social security and other payments he or she received.

Question 21, for women over 15 years of age only, was to specify the number of babies a woman had ever borne. The Bureau appears to have correctly expected that it would be impossible to get a 'correct' answer to this question: babies who had died were either 'not recalled' or had 'never existed'.

The data on fertility could not be corrected in transcription because there was nothing to go on.

The question about 'employment last week', question 22, seemed likely to generate confusion if people ignored the 'last week' qualification and indicated that they were employed but had not actually been working in the preceding week. 'Family business (22c) could be confused with housekeeping, that is, with 'housewife's business'. And the related questions, employer's name and industry, could elicit the name of one's boss rather than employer, and the firm's name, not the 'industry' it was engaged in. White Australians employed in the public service, for example, also have some difficulty with 'employer's industry' and these confusions could usually be cleared up in transcription. It is not clear what happened to people such as hunter-gatherers who decided they did not belong in any of the four boxes of question 22 - worked for pay, have a paid job but did not work, helped without pay in family business, looked for work.

The two other sheets the census collectors had, the dwelling details and community details sheets, presented fewer problems. Both were to be filled in by the collectors and provided they understood that a 'humpy or tin shed' was an 'improvised home' and that a more temporary structure was to be regarded as a 'makeshift camp' and classified as 'other' there could be no great difficulty about the dwelling details sheet. The only reservation is that one observer noted that a field officer regarded a one-room galvanised iron house with a concrete floor and lean-to verandah on a Gibb community - the standard housing there - as an 'improvised home'. The structure was not, of course, improvised at all in the same sense as the shelters built (but not as makeshift camps) on many outstations.

The community details sheet was designed to replace the collector's record book used in the white area. It was also designed as a check on the personal details sheet, for each one of which there was to be a single row entry on the community details sheet,designed to appear as follows:

Dwelling number	Person Number	Name	Sex M	Sex F	Relation-ship	Abor/ TSI/ Other	Remarks
1	1	Bill Smith	✓		person 1	other)	form
	2	Mary Smith		✓	wife	other)	left
2	1	John Tipiloura	✓		person 1	Tiwi)	short
	2	Sue Tipiloura		✓	wife	Tiwi)	form
	3	Tom Tipiloura	✓		son	Tiwi)	used
		and so on					

It was thought likely that on this sheet as on the personal details sheet, there could be confusion between the number of a house as allocated by the collector for keeping check on the progress of the collection and the number allocated in a street or for some other purpose. And 'person number' could be construed as meaning 'number of persons' in a dwelling, rather than first, second, third or succeeding number allocated to a person. It was also thought that collectors might fill the community details sheet in from the personal details sheets at the end of a days work if they were rushed or having difficulties, making the one useless as a corrective for errors in the other.

As in the personal details sheet, the community details sheet recorded relationships within a household and dwelling group. The instruction was to

'try to enter westernised relationship, however if relationship is given (e.g., as brother of person 1 etc.), use this description' which meant that if a traditional relationship was offered it should be accepted. The instruction continued that where the forms were used 'for a group of unrelated persons (such as young men's quarters) write nil' for relationship between persons. It was thought likely that the 'true' relationship to a family head might not be obtained, that some of the complexities of subordinate relationship might be lost altogether and that there would be particular difficulties about relationships in one-sex households.

The Bureau believed that most of these difficulties could be ironed out either in the training seminars or in the transcription but that even if there was a residue of uncorrected confusion the count was far more complete and more accurate than anything that could be obtained by selfenumeration of the Aboriginal population.

It is appropriate to end with some statistics about collecting statistics. For the Australia population as a whole 7.5 million census forms were printed and nearly as many household brochures, which with return envelopes and other paper weighed over 756 tonnes. Over 30,000 were recruited as collectors and in Darwin the weight of the paper was so great that it could not be stored in the Bureau seventh floor office.

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LEFT THEORISING ON THE NORTHERN TERRITORY POLITICAL ECONOMY: AN INTRODUCTORY NOTE

ROLF GERRITSEN

The resources boom projects of the 1960s and 'seventies largely took place in the northern half of Australia (with some exceptions, like Bass Strait hydrocarbons and Worsley bauxite). It is widely accepted that much of the future economic development of Australia will continue to be in the resources sector, where Australia will retain a comparative advantage, and that this development probably will be concentrated in the northern half of our continent (cf Harman & Head 1982, 11).

This raises two important questions:

(i) how has (and will) the resource-based development of these northern littoral states affect the way they relate both to the commonwealth government and to other governments?

(ii) have these states developed similar 'domestic' political interests, modes of governmental behaviour - political 'styles' - that to a large degree transcend the ideological or partisan parameters of inter-party conflict?

This paper seeks to answer the latter question for the Northern Territory; though it will be seen that the relationship with the commonwealth is more central to the answer than for any other state or territory in Australia.

That Queensland under Bjelke-Petersen (and WA under Court?) is (was) different has become a truism (cf Smith 1981) repeated endlessly in the press. The components of that difference are part of the chit chat of politics - Queensland is a more mineral-oriented economy than the rest of 'southern' Australia: it is more supportive of multinational corporations' interests; more 'development' oriented; less concerned about civil liberties or the claims of Aboriginals; a government for lower taxes and reducing the size of the public sector; a government for more vehemently asserting itself against the commonwealth. It is widely believed that these policies, presented under the rubric of 'states rights', are a major component of the ideology and political activity of the non-Labor parties: 'The rhetoric of State rights, on the other hand, is usually the rhetoric of the right - whether in Australia or other federations' (Wilenski 1983:86).

The question is how much these differences are attributable simply to the party in power in Queensland (and WA), and thus a federalist dimension of partisan or ideological inter-party conflict, and how far they are determined by the socio-economic structure of the relevant state irrespective of the party in government?

To decide such a question obviously involves such a host of subjective evaluations that the answer may provide more clues to the ideological allegiances of the analyst than to the political behaviour of the littoral state governments. But it is possible to begin analyses at the fundamental level of politics - Lasswell's 'who gets what, where and how' - that is through the analyses of state government budgets, an objective indication of who gets what if not how it is obtained. Fortunately the Grants Commission produces valuable data in this area that provides a framework for judging how different states raise and disburse their revenues. This adds a more quantitative element to the largely qualitative estimation of governmental political behaviour.

This paper analyses the Northern Territory within the context of the 'left' theoretical models of littoral state political economy that have been developed within the last decade. Though these models are still evolving they have so far given more insights into federal relations than the simpler 'states-vs-the-commonwealth' orthodoxy of political science and journalism.

Left Political Economy

In the last 30 years important advances have been made in 'left' or neo-marxian theorising. These have been in two areas. The first is in the understanding of the internal dynamics of the capitalist state. This writing has concentrated upon the relations between capital, or fractions of capital, and the state, and the maintenance of the ideological dominance ('hegemony') of capital (or the true interests of capital). The second area has been in a post-Lenin analysis of the capitalist-imperialist world system. Beginning with Andre Gunder Frank, and Mandel and Wallerstein, this revision of Marxist theory has stressed certain elements of the development of the world economy: the creation of dependence; the dominance of the core (industrial) nations over the peripheral (non-industrial) nations; and the role of multinational corporations in creating a new international division of labour.

In Australia this work has had a considerable impact upon the academic or intellectual left, elements of the trade union movement and sections of the Labor Party. Occasionally this impact has led to slavish imitation, as in Theophanous' naive application of Habermas to recent Australian political history (Theophanous 1980). But this theorising has also had an influence because it built upon an already considerable native intellectual tradition which owed its inspiration to Brian Fitzpatrick.

In the years 1936-46 Fitzpatrick wrote four books (and many articles) on Australian history. The first of these British Imperialism and Australia (Fitzpatrick 1939) was a study of the economics of the British colonisation in Australia in the period up to the advent of the pastoral age. His later work emphasised the dominance of British capital in Australia's economic development up to World War II (cf Fitzpatrick 1941). Fitzpatrick had two central theses: that Australian development was 'colonial' (or peripheral in the modern parlance) and that it was inextricably bound up with Britain's development (cf Watson 1979, ch8). He anticipated much of the later dependency theory.

Under the initial influence of Fitzpatrick the dominant strain of left writing on Australian development has had a nationalist, anti-dependency, anti-foreign-control-of-our-economy focus. The doyen of left academics, E.L. Wheelwright, actually published an early work with Fitzpatrick (Fitzpatrick and Wheelwright 1965). Some less internationally-focused, more orthodox marxist thinking did survive. As late as 1977 the Australian Left Review (ALR) could see the central issue of Australian politics as the old conflict between rural and manufacturing capital.

> Australian capitalism has always had to reconcile the interests of two of its class fractions: the dominant industrial fraction on the one hand and rural capital on the other (ALR 1977, 21).

But even among the more orthodox the international influence upon Australia's development was apparent.

> The weakness of Australian capitalist development was that its manufacturing industry arrived too late for it to become a large industrial power. Its junior, and often subservient role in imperialist politics derives from this (Burns 1977:4).

During the mid-1970s Australian writings in the neo-marxian vein proliferated. In part this was a reaction to disappointment with the Whitlam Labor government (cf Catley & McFarlane 1974), and a reaction to its overthrow, which radicalised large segments of the labour movement. This radicalism was given impetus by the extraordinary successful political economy conference at Sydney University in 1976, which inter alia, spawned the political economy courses at that university and the Journal of Australian Political Economy. That journal has specialised in political economy-style analyses of Australian capitalism (cf Stilwell 1980, 1982). But of more relevance to this paper is the international dimension and its effects upon the analysis of economic formations of regions such as the Northern Territory.

This 'international dimension' has emphasised four inter-related aspects of Australia's economic development over the past decade:

(i) growing 'foreign' control over Australia's economy via multinational corporations (e.g., Crouch 1978, 1980; Wheelwright 1978; AMWSU 1977, 1979; Catley & McFarlane 1978).

(ii) the 'de-industrialisation' of Australia as Australian manufacturing companies located in low labour cost 'off-shore' locations (e.g., Utrecht 1976).

(iii) the 're-structuring' of the Australian economy away from manufacturing towards minerals. This aspect of the analysis was given impetus by a misunderstanding of the work by Gregory (1976), a misunderstanding more conventional analysts (cf Miller 1976; Baume 1977) did not share.

(iv) the relocation of the axis of dependency away from Washington (and London?) to Tokyo - an analysis that was subsumed under the 'Pacific Rim' strategy (and was given impetus by orthodox economists' studies such as Crawford and Okita 1979).

(A fifth element was concern at the growing concentration of Australian capital, a theme of the later AMWSU - inspired pamphlet, People's Economic Program, which became an element in the 35 hour week campaign).

This interrelation was expressed in analyses such as that of Leach:

> The 1980s will see a restructuring of the Australian economy. Already the accepted wisdom of most high level media discussion on this subject is not when the Pacific Rim Theory will become a reality, but at what pace Australia will and must integrate with other nations of the Pacific Basin (Leach 1980, 8).

For this paper the important aspect of these analyses is that they introduced an internal spatial dimension to the economic redirection of Australia. Stilwell (1980, 1982) emphasised the centralisation of development in the major south-eastern metropolitan centres. Other writers drew attention to the central importance of the north of Australia. Catley and McFarlane, in talking about the effect of mineral development on Australia's development, claimed that:

> This will involve, therefore a geographic reallocation of Australian economic activity and political power as has to a degree already occurred. There is a new 'Brisbane line' above which a rising mineral surplus may be produced without a resources tax to take off monopoly rents from capital's windfalls and protected by a cordon sanitaire - Court, Bjelke-Petersen and the Northern Territory Legislative Council (Catley and McFarlane 1978, 42).

This was the first introduction of the Northern Territory into the arena of left political analysis. It introduced two elements that are significant to any examination of the Territory's political economy:

(i) a federalist element in suggesting that the different states or territories of Australia had different politics;

(ii) the linkage of these differences to the overall restructuring of the Australian economy, and in particular the growth of the post-1960s mining sector in the north-western states.

These themes have been followed up (cf Stilwell 1983). O'Shaughnessy (1979) has related the differences between Dunstan's South Australia and Bjelke-Petersen's Queensland to the varying strengths of 'local' (i.e., based in that state) capital. But it is a measure of the peripheral status of the Northern Territory that it is even now overlooked in this type of analysis. For example, Head (1983,9) puts SA in the 'core' states with NSW and Victoria, while WA and Queensland are the 'primary products-exporting states' and the Territory is overlooked. This ommission is perhaps a reflection of the uncertainty that still attends this 'federalist' political economy. Most observers are agreed that Victoria and NSW are 'core' states and the WA and Queensland are the mining 'peripheral' states. Stilwell (1982,132) includes the Northern Territory in the 'rapid developers' (WA, Queensland). But Tasmania and South Australia hover ambiguously around both groups. O'Shaughnessy (1979) puts SA in with Queensland, while Stevenson (1976) excludes Tasmania from the core states.

The significance of this new direction in Australian political research is that, as Galligan (1982) notes, left analysis in Australia has traditionally been hostile to federalism. This 'tradition' was inaugurated by Gordon Greenwood in his 1946 study the Future of Australian Federalism. The states were equated with the reactionary preservation of vested interests, an option that the experience of the Whitlam government seemed to confirm (cf Hutchinson 1983; Peachment & Reid 1980; Rydon 1975; Maddox 1973). So left analysis has been hostile to federalism and inclined to the advocacy of centralisation of power in the national government.

Partly as a result of this inheritance, left theorists have not focused upon the states except through this 'core-periphery' paradigm. This most developed example of this approach has been the important work of Garth Stevenson (1976). Stevenson, a Canadian, put a new, non-juridicial, perspective into the analysis of Australian federalism. It was a persepective derived from the history of dominion-province conflict in Canada. It was within a stream of Canadian left intellectual inquiries which paralleled but pre-dated the Australian developments described here (cf Richards & Pratt 1979, ch1; Easterbrook & Watkins 1967, pt1). Stevenson applied the analysis of the hydrocarbons-rich provinces of western Canada and the federal tensions that developed after the (so-called) 'energy crisis' of 1973. Hence his concentration upon mineral resources as the key to intergovernmental relations. The choice of this key was derived theoretically from the 'resource quadrilateral' thesis of international resource politics of Connelly and Perlman (1975) and 'staples' theory.

Staples theory evolved out of the work of Innes and MacIntosh (cf Easterbrook & Watkins 1967) and later took a turn towards neo-marxian analysis (Watkins 1977). Staples industries were those based upon agriculture and extractive

resources and primary manufacturing. Primary manufacturing described industries where value - added by procesing was low relative to the value of the staple input (e.g. abbattoirs, flour milling), or where capital-intensive processing (e.g. simple petrochemicals) upgraded the staple into some standardised intermediate produce. Secondary manufacturing (e.g. textiles) involved more processing of the primary inputs, generated more employment per unit capital and tended to produce finished goods to be traded on the domestic market. I do not want to make too much of the staples theory's applicability to the Australian context; it has its (muted) advocates (e.g. McCarthy 1964; Pomfret 1981) and its critics (Butlin 1964). The descriptive term 'staples' is here used to denote mining development that is export-oriented. I do not believe the theory adequately explains economic change but rather that its utility is descriptive.

The market for staples production was international or at least trans-regional (cf Bertram 1967). This latter fact distinguished the new mining industry from the old pre-war industry in south-eastern Australia. That industry served the Newcastle-Wollongong-Whyalla triangle in an integrated, diversified economic structure attuned to the domestic market. The iron ore mines of WA and the open cut coal mines of Queensland were (by and large) monocultures designed for exports to Japan (Stevenson 1976,9-10).

Stevenson argues that the mineral boom of the 1960s and early 'seventies irrevocably changed federalism.

> With the benefit of a longer perspective than is possible at the present time, future students of Australian Federalism may conclude that the sudden expansion of the mineral resource industries in the late 1960s ended and eventually reversed the tendency towards increasing centralisation which dominated the first two thirds of the century (Stevenson 1976, 87).

Stevenson saw that in Australia the states had greater political powers in the resources area than in the USA, previously the usual model for writers on Australian federalism. Like Canada but unlike the USA, Australian states owned the minerals in their territory. Reinforcing the power of the producing states is the importance of mineral production to GNP, far greater than is the case in the USA. But the factor that gives this its significance and the minerals-rich states of Australia their unique politics is that this minerals production is export-oriented. Consequently these staples are vertically integrated into dependence upon their customers. The other states of Australia have a diminished economic significance for them; they relate to overseas markets and overseas capital and are hostile to Australia's national government.

This meant that Stevenson introduced an economically deterministic emphasis into the study of Australian federalism. Other observers echoed this theme that federal conflict reflected the different economic interests of the federal units.

> Thus in disputes between Canberra and the States the causes that the State Premiers often promote - as in the case of disputes over the export of minerals, over off-shore drilling rights or over company law - are reflections not only of their institutions' or their residents' economic interests but also of capital on which they depend (Wilenski 1983, 88).

The 'capital' in this case was the mining industry.

The Resource-Rich Staples States Model

From their differential dependence upon minerals exports the states can be (Stevenson argued) divided into two categories: the resource-rich outer states (WA, Queensland) and the secondary manufacturing-based inner states (SA, NSW, Victoria). Stevenson is ambivalent about individual state's categorisation, Tasmania hovers at the edge of both categories, and the Bass Strait's oil and

gas makes Victoria marginal. The states in these two sets, outer and inner, increasingly act politically in concert.

> An important result of Australia's recent mineral developments has been to increase the interdependence among what might be called the 'inner' states while in a sense increasing the separateness and remoteness of the 'outer' states (Stevenson 1976, 9).

The outer states, as if to compensate for their political remoteness, have institutionalised their camp's symbolic existence through the North Australia Development Council. This originated from a conference arranged by the National Party of Queensland in 1976, and was formally created in 1978 at Alice Springs. The theme of its 1982 Port Hedland conference was development and defence (NADC 1982), two of the preoccupations of those states.

From these two camps come different reactions to and expectations of federal government. The outer states conflicts with the commonwealth over several policy areas:

(i) the general question of foreign investment: the outer states are hostile to the FIRB's control over foreign equity in resource projects;

(ii) export controls or price quidelines: the outer states, with the more recent, larger scale, more efficient mineral extraction industries, oppose commonwealth interference in this area, preferring to let the international 'market' set their prices;

(iii) exchange rates and tariff politics: the outer states are less resistant to an undervalued currency; and they are hostile to tariffs;

(iv) taxation questions: the outer states are more hostile to high taxes, especially in the minerals sector;

(v) Aborigines and environmental questions: the outer states are more hostile to Aboriginal land claims and more lax about environmental controls than Canberra would like.

Around these issues, it not in this exact format, Stevenson based his study of Australian federalism. But apart from this federal-state relations area his thesis embodied an implicit model of the internal dynamics of the politics of the 'outer' resource-based staples states. Unfortunately Stevenson glided over this aspect of his work. He merely described the industrialised inner states as (naturally?) Labor, the mineral-based states as non-Labor. This involved some prescience, writing as Stevenson did in 1975/76. The ALP had been routed federally and only held SA and Tasmania, though it did recapture NSW in 1976. But Victoria was then still six years away from securing a Labor government, and Labor had not won a Victorian election since 1952.

It is probably that Stevenson was using 'Labor' to include the 'small-l' Liberal governments of the Hamer variety in Victoria, which shared some of the ALP's concern for the environment and women's and 'social' issues. The converse of this picture is of WA and Queensland (and the NT?) as more 'development'-oriented, more attuned to the interests of multinational corporations, and less sensitive to the interests of Aborigines, women and the unemployed (cf Harman & Head 1982 passim; Head 1983). This stereotype belongs particularly to left theorists. Queensland under Bjelke-Petersen is seen as in alliance with the multi-nationals (Catley and McFarlane 1978; Wheelwright 1978, ch5; O'Shaughnessy 1979; Catley and MacFarlane 1981, passim), and as a thoroughly reactionary state (Theophanous 1980, 376ff). Of course this presentation is an over-simplification because, except for O'Shaughnessy (1979), very little attempt has been made systematically to examine the political economy of individual states (with the part exception of Stilwell 1980, 1982). But these stereotypes are not entirely confined to the left, the major Australian metropolitan dailies share many of them, though their emphases depend upon their place of publication! Perth, Brisbane (and Darwin) dailies rail against Canberra's interference with their development; the Sydney and Melbourne dailies regard these states with the patronising tolerance reserved for gauche country cousins. These models of the two types of states with their divergent politics and economics are also shared by most politicians and academics (cf Cotton 1974; White 1981).

The Northern Territory Political Economy

The question for this paper is whether the WA-Queensland staples model of resource-rich economy with ultra-conservative government applies to the Northern Territory.

The most persistent surveyor of the Territory scene, Heatley, eschews any ideological tag for the NT government:

> ...It is difficult to give the government even an approximate ideological label, given its eminently pragmatic approach. If a common strand emerges, then perhaps the central distinguishing feature was the 'Territorianism' of the government (and particularly its leader) characterised by an often over-bearing and flamboyant commitment to Territory development (Heatley 1981, 25; see also Heatley 1982a, 200ff).

Heatley also argues that the NT government has had less than harmonious relations with the mining industry, disputes occurring over royalties, regulation of the industry, environmental controls, and Aboriginal employment issues (Heatley 1982, 9). Nevertheless it is fruitful to examine the range of issues posited above to establish whether the Territory fits into the resource-rich outer staples state paradigm.

The Territory government certainly espouses 'a frontier ethos' (Harman & Head 1982, 14) - or 'Territorianism' or 'developmentalism' or whatever variation of those terms observers choose to apply. This is held to be an important characteristic of outer state premiers. To me it is the sine qua non of state politics, whether in a core state or a peripheral state, and so cannot vary meaningfully between the inner and outer model.

Nevertheless the Territory's developmentalism has been attended by some success since self-government. There has been a dramatic population increase from 110,900 (in December 1978) to 127,200 (in December 1982), an average annual increase of 4 per cent, over twice the national average. The labour force has similarly expanded. In August 1978 there were 48,500 people employed in the Territory, a figure that grew by 5.8 per cent per annum over the subsequent three years. That important motor of economic activity, housing construction, was buoyant; from a total of 1,206 commencements in 1978/79, this had increased in 1980/81 to 1,930 dwelling commencements. It was in the period 1978 to 1981/82 that the Territory achieved the reputation of a fast-developing economy,

in effect insulated from the recession that gripped the rest of Australia. It was in that period also that the developmentalist style achieved the status of reality, rather than the millenial hope more traditional for the Territory (cf Coltheart 1982).

Despite Heatley's claims for pragmatism the Territory govenment fulfills most of the Stevenson-based criteria of the political behaviour model for the resource-rich outer states. It has had substantive disagreements with the federal government over commonwealth equity provisions for resource industries, arguing successfully on behalf of Magellan over the Mereenie project, and less successfully for Getty Oil over the Jabiluka prospect. The Territory government is currently pressuring the Hawke government for control over the Jabiru oil field in the Timor Sea. This is presented as undeniably an assertion of the Territory's inherited rights (the Ashmore and Cartier Islands were previously administered as part of the NT, when it was under direct commonwealth administration), though the royalty potential of the hydrocarbons field is probably the real motivator.

The Territory has also been in conflict with successive Canberra governments over the Commonwealth's control over exports under its trade power. This, of course, has been exercised (together with other legislative instruments) to control the opening of uranium mines in the Territory. Uranium has certainly been a divisive issue in federal-Territory relations. While the Fraser government was in power the CLP concentrated their attacks upon the anti-uranium attitudes of the ALP, especially the Territory ALP (cf Heatley 1982). The election of the Hawke government has simplified the political tactics of the CLP to simply blaming 'Canberra' for the loss of Territory development.

The Territory government has also spoken out strongly against tariffs on Australian imports. It argues that a reduction in tariff levels would have an expansive effect on the regional economy of the Northern Territory. This would not be through enhancing the Territory's export markets - cattle and bauxite are both sold in markets that contain substantial rigidities or imperfections, and so tariffs would have a neutral effect upon these markets. But a reduction in tariffs would enhance consumer spending power and so benefit the retail sector of the Territory economy (and also the construction sector). The Territory's attitude on this question is unhampered by the existence of any significant local manufacturing capital interest. However any ALP government, as on the uranium issue, could be expected to be more equivocal about tariffs because of Labor's stronger national linkages. So the Territory's current strong stand on tariffs is a reflection of the economic interests that compose the governing party, but will not necessarily continue undiluted if the Territory ALP attains office.

The Territory also fulfills the outer staples model in maintaining relatively low levels of state taxation. The Treasurer, Perron, made considerable play in delivering the last two Territory Budgets about the stability of NT tax imposts. Though there are budgetary reasons for this achievement (to be discussed below) there is no doubt that it represents a considerable ideological satisfaction and electoral advantage to the CLP. Along these lines the Territory has also vigorously resisted the Commonwealth Mines and Resources Minister, Walsh's, resource rental taxation proposals. Curiously this attitude is contrary to the NT's economic interests. The small Mereenie and Palm Valley oil and gas fields would have remained marginal if the Fraser government's regime of pro-rata royalties had continued. Off-shore in the Timor Sea the Puffin Oil and gas field has had its development delayed by being classified as 'old' oil under the post-1976 Fraser government import parity pricing system. If it had operated under a different system of taxation it could have been developed cojointly with the nearby Jabiru field, thereby perhaps justifying a refinery at Darwin which would secure more economic benefit to the Territory than Darwin's projected role as a logistical service point for the offshore export field. So the NT government's opposition to resource rental taxation owes more to the CLP's partisan or ideological motives (and a sympathy to the mining interest, whose chances of windfall gains would be adversely affected) than to enlightened economic self interest. Territory opposition to resource rental taxation probably would not continue if the Territory ALP achieved office.

On environmental issues Territory government figures have been more muted, though commonwealth involvement in 1983 in preventing development upon a site occupied by three pre-war designed houses in Darwin was not welcomed. The issue of Aborigines has led to much more pervasive commonwealth-Territory conflict. The Territory government has several times intervened in opposition to Aboriginal traditional owners. The Territory Crown Lands (Vesting of Lands) Act 1983 has been interpreted by the Commonwealth as an attempt to circumvent and preempt the provisions of the Land Rights Act and is the subject of continuing dispute and negotiation.[1]

The Territory has been as jealous in defence of its prerogatives as any state. The government has made repeated appeals, supported by the Territory ALP, for Territory control over the Kakadu and Uluru national parks. Territory government appeals for the commonwealth to fund a university in Darwin have to be seen in the light of the Territory seeking to establish the institutions and symbols of autonomy. The Territory ALP Leader, Collins, committed that party to full statehood in the 1983 elections, so the ALP is equally determined to oppose the commonwealth on these issues. There is nothing unusual about this. Northern development has always been a part of the political mythology of the NT (cf Coltheart 1982) and continues to be a primary factor in contemporary politics (cf Warhurst 1982).

As suggested by the outer littoral states model the Territory has been as oriented towards external relations. The Chief Minister has made frequent trade trips to the ASEAN nations and Japan. Leading government figures speak about a re-orientation of the NT's regional identity towards a position integral to South East Asia - to make a 'great leap northwards'. Darwin is seen as the terminus of a 'rail Bridge to Asia'. Through exploitation of hydrocarbons (cheap?) energy will be obtained to allow Darwin manufacturers to achieve economies of scale through access to the South East Asian market. A free trade zone concept has been similarly mooted to allow an export-oriented free trade enclave to lead to processing.

The role of the state in the Northern Territory is to support private enterprise:

> ...with our heavy emphasis on capital works and on going support for the private sector, we are building up the Territory's productive base for the future...(Northern Territory Budget Paper No. 1 1982/83 p4.)

The role of the public sector in the NT has been twofold: to build up infrastructure - to provide the physical infrastructure and social capital required by private business - and secondly to assist and direct the economy ultimately so that the private sector can take over as the 'engine of growth'. A third function of the NT state (flowing from the notions of 'relative autonomy') is to maintain itself. This latter aspect of the functions of the state should be highlighted in the Territory.

The state in the Northern Territory is not 'passive' and is not characterised by a 'ready compliance with corporate interests' (Galligan 1982, 239). Neither has it moved beyond this to entrepreneurship. But the state in the Northern Territory is all-pervasive; it is the major factor of production. It is the major employer:

TABLE 1

NT Industry Sector of Employed Persons
(Australian average in brackets)

	1976 Census	1981 Census
Australian Government (a)	30.9 (7.6)	9.8 (7.3)
State Government	1.1 (15.3)	22.4 (15.3)
Local Government	1.8 (1.7)	1.0 (1.7)
Private Sector	66.2 (75.4)	54.1 (69.4)
Not Stated (b)	n/a (n/a)	12.7 (6.2)

Source: ABS; Summary Characteristics of Persons and Dwellings

(a) Includes defence forces personnel.

(b) Not stated figures are included in Private Sector and not separately available.

The figures in table 1 indicate both the historical transfer of functions from the Commonwealth government to the Territory government (between 1978 and 1980, following the NT's self-government in 1978), and the importance of the NT government in the employment structure of the Territory when compared with the national averages.

Workforce statistics are most significant. They provide the bridge between staples theory and neo-marxist analyses (cf Alexander 1983, 57-58; Watkins 1977). Workforce statistics provide a 'window' into the production factors of an economy. They reveal the overwhelming preponderance of the public sector in the NT economy. Also they are readily available, unlike reliable statistics for value-added for each sector of the economy. Although value-added might give us a better measure of purely economic efficiency or power, workforce statistics give a better measure of social and political interests in a democracy. Mining workers can mean votes for the mining interest, manufacturing workers can indicate the likelihood of a strong pro-tariff vote. The preponderance of Territory workers in the public sector (cf table 1) gives us a clue to the low relative expenditure of the Northern Territory in the areas of health, education and welfare (cf table 2 below). These, together with the workers in the mining sector are secure workers, unlike the marginal workers of the construction industry, whose job security is tenuous at best. These secure workers do not need social welfare as much as do the construction workers (and the workers in the south-eastern states' manufactories), let alone the unemployed. The secure workers have guaranteed futures.

So we see that the relative proportion of the workforce in various sectors of a state's economy can determine the levels of support for particular policies. For example, the low proportion of workers (voters) in manufacturing in the Territory (cf table 3 below) gives us a clue as to the Territory government's advocacy of tariff reduction. The Territory's workers, as consumers, would benefit from lower tariffs; the employment costs of such policies would not be borne by Territorians. This industrial factor, as much as the ideological proclivities of the CLP, may explain the NT's opposition to tariffs.

Even if we compare the workforce on an indusry-by-industry basis, the Territory's dissimilarity to the other staples states emerges:

TABLE 2

Proportion of Workforce by Industry (a)

	NSW/Vic 1976	Average 1981	WA/Qld 1976	Average 1981	NT 1976	Average 1981	Aust. 1976	Average 1981
Agriculture	6.Ø	5.1	9.35	8.Ø	5.7	4.Ø	7.Ø	6.Ø
Mining	Ø.75	Ø.8	2.65	3.Ø	3.8	4.6	1.3	1.4
Manufacturing	22.6	2Ø.35	13.7	12.75	4.4	4.6	19.7	17.7
Electricity, Gas, Water	1.95	2.15	1.4	1.65	Ø.8	1.9	1.8	2.Ø
Construction	6.6	6.Ø	9.Ø5	7.5	14.1	9.2	7.4	6.3
Wholesale, Retail Trade	18.Ø	17.15	18.5	18.1	11.6	11.9	18.Ø	17.4
Transport & Storage	Ø.4	Ø.45	5.3	5.7	5.6	4.8	5.Ø	5.2
Communications	2.Ø	2.Ø	1.8	2.Ø	1.7	1.8	1.9	2.Ø
Finance, Property & Business Services	5.55	7.65	6.95	8.2	4.6	5.5	7.2	8.4
Public Admin. (excluding Defence)	3.7	3.75	3.95	3.8	8.7	1Ø.2	5.6	5.6
Community Services	12.95	14.35	13.85	15.Ø5	15.1	19.5	13.5	14.9
Recreation, Personal etc. Services	4.65	5.Ø5	5.15	5.2	5.1	5.9	4.9	5.2
Not Classified	6.8	7.95	7.Ø	7.45	13.5	15.2	6.8	7.7

Source: Calculated from ABS Census data.

(a) Means that even rounded off these figures are less than 1Ø0 per cent because of the exclusion of defence personnel from calculations.

Differences between the Northern Territory and the 'core' states, NSW and Victoria, are obvious and expected. Of the Australian states the Northern Territory has the highest proportion of its workforce engaged in mining. And the proportion is significantly higher even than in the two 'standard' staples states, WA and Queensland. The Territory also has a minute manufacturing sector, even in comparison with WA and Queensland. What is interesting is the public administration (excluding defence personnel, which in the NT is some 2 per cent of the workforce) segment of the workforce. Contrary to the expectations of the Stevenson-based model, W.A. and Queensland have larger bureaucracies than the 'naturally Labor' states of NSW and Victoria. But in this area the Territory's uniqueness is remarkable. The NT has more than twice the proportion of its workforce in the public sector than any of the other four states tabulated.

The Territory public sector, as noted above, is the basic stimulant to growth. Its importance in capital creation and its workforce's importance to the retail and recreation and personal services sectors is paramount. Given that over 85 per cent of its revenues come in the form of commonwealth government monies, the relationship with Canberra becomes the key to Territory development and politics. This factor probably explains as much about Territory politics as its categorisation with the staples states. These latter states have a greater degree of autonomy from the direct influence of Canberra. But, Canberra is the central issue of politics for the Territory. The 1983 election culminated a successful campaign by the CLP government to convince the Territory electorate that Canberra's actions threatened their future (cf Gerritsen 1984). This may indicate a rhetorical or ideological similarity with Queensland and WA, but for the Territory government more was at stake than partisan political squabbles.

So it is suggested that while the rhetoric of political conflict in the Territory is similar to that of Queensland there is an underlying qualitative difference. This was exacerbated in 1983 as the recession which had been affecting the rest of Australia made a delayed arrival to the Territory. It had been delayed by the reconstruction after Cyclone Tracy (cf the 14.1 per cent of the workforce in the construction industry in 1976 - table 2 above); the construction of the Nabarlek and Ranger uranium mines and the associated township of Jabiru; and the boom in commonwealth funding that followed self government. Commonwealth funding had gone from $440 million in 1979/80 to $729 million in 1982/83. Even under the Hawke Labor government it increased dramatically to $844 million in 1983/84. But private sector growth had slowed despite the continuing support from Canberra.

This first became obvious in a decline in the rate of employment creation. This had grown dramatically after 1978 but after 1981 began to slow. In August 1981 there were 57,500 persons employed in the NT. Two years later this had only grown by 2.4 per cent, about a quarter of the rate of population increase. There was also an associated increase in the numbers of unemployed in the Territory. In September 1981 there were 3,771 persons receiving unemployment benefits; by September 1983 that number had increased to 7,932 an increase of 110 per cent over the two year period. Associated with the economic slow down was a declining (in real terms) Territory revenue-raising effort. In the fiscal year 1981-82 the Territory government raised $120.5 million. In the 1983/84 NT Budget that figure was expected to be $136.6 million, a decline in real terms over the two years in the order of 4.5 per cent.

More significant than the decline in Territory revenue-raising was the decline in public works stimulus to the Territory economy. In 1979/80 the Territory government allocated 17.7 per cent of available funds to the Transport and Works Department's capital works program. This steadily declined - 14.4 per cent in 1980/81; 12.8 per cent in 1981/82; 12 per cent in 1982/83; and 11.2 per cent in the 1983/84 Budget. The NT government did attempt to counter this drift by a deferred payments capital works program in its 1983/84 budget.

In part the decline in capital works reflected the exigencies of the political-economic cycle. Recurrent spending had to be maintained in the 1983/84 Budget because that was to serve a Territory election. Similarly the Territory maintained a growth in the public sector workforce that was far greater than for the rest of Australia (cf tables 1 and 2). The increasing problems for the Territory economy add a further dimension to the partisan or ideological conflicts with the commonwealth government during 1983 over uranium mining and the Alice Springs to Darwin railway. The promise of a big 'development' project, the sine qua non of state-level politics, was denied the Territory. And this in the context where the economic recovery that seemed to be gathering pace in the rest of Australia was not spilling over into the NT. So the CLP government adopted the tactic of 'Canberra-bashing', despite the record increase in commonwealth funding in 1983/84, for the Territory government's own political survival. It was a tactic that provided a resounding victory for the CLP in the December 1983 Territory election, though it may cause longer term problems with Canberra because of the Territory's continuing economic and constitutional dependence.

So the Territory government vociferously opposed Canberra; extolled 'development', in particular the railway and the Jabiluka uranium mine; opposed Aboriginal land rights claims; and ignored civil libertarians' opposition to its Criminal Code legislation (though it backed down on key provisions of this legislation under commonwealth pressure early in 1984).

In short, the NT government behaved in the manner popularly supposed typical of Premier Bjelke-Petersen of Queensland and natural for a 'non-Labor' state in the Stevenson-left typology. But this behaviour was a rational, calculated reaction by the CLP government to growing problems in the Territory's political-economic cycle.

Nevertheless ambiguities remain in the categorisation of the Territory into the staples states paradigm. Two of these are in the trade position of the Territory and in the question of mineral royalties. Largely because of the necessity to import petroleum products from overseas the Territory does not have the external trade surplus that is supposedly characteristic of the staple states and is fulfilled by WA and Queensland within the Australian economic system (cf table 3 below)

TABLE 3

Exports and Imports by State 1978/79 and 1981/82

($,000)

State	1978/79		1981/82	
	exports	imports	exports	imports
NSW	3,772,411	5,759,568	4,604,012	9,232,245
Victoria	2,702,452	4,693,538	4,179,936	7,169,661
Queensland	3,284,745	1,027,772	4,415,598	2,179,774
SA	926,222	865,863	1,281,956	1,337,311
WA	2,826,592	1,160,984	3,988,892	2,535,102
Tasmania	513,148	140,652	647,070	166,032
NT	217,784	96,644	386,257	373,895
ACT	3,980	6,536	2,710	9,262
Not available	-	-	79,466	-
Total	14,247,333	13,751,559	19,585,898	23,003,283

Source: Year Book Australia 1980, 1983 (Canberra: ABS)

In 1978/79 the Northern Territory had a 'trade surplus' of over $120 million. In 1981/82 that had shrunk to just over $12 million. Yet in those years WA and Queensland's trade surpluses declined by only 6 per cent. The temptation to make much of these figures should be resisted; the Territory will improve dramatically in the 1990s when the Channel Island power station removes Darwin's dependence upon imported fuel oil for electricity generation. But the figures do indicate that the Territory is less a net provider to any Australian export surplus than the model of the staple state presumes. Similarly the Territory's experience with mineral royalties introduces ambiguities into the staples state paradigm. Its government is as much influenced by the small miners as by the

large multinationals. Due to the small size of Territory electorates (about 2,500 voters in each in the 1983 election) any organised interest representing or influencing more than a few dozen voters becomes a politically influential group.

When compared with the Grants Commission's 'standard' states NSW and Victoria, Territory receipts from mining royalties look impressive and seem to deny the popular image of a state operating at the behest of the mining companies (cf table 4).

TABLE 4

Government Revenues from Mining Royalties (1981/82)

	NSW		Victoria		NT	
	Amount ($m)	Per Capita ($)	Amount ($m)	Per Capita ($)	Amount ($m)	Per Capita ($)
Black coal	73.894	14.02	-	-	-	-
Offshore Petroleum and Natural Gas (a)	-	-	107.440	27.07	-	-
Uranium	-	-	-	-	1.175	9.26
Other Minerals	14.021	2.66	1.343	0.34	3.020	23.82
Total	97.915	16.68	108,782	27.40	4.195	33.09

Source: Commonwealth Grants Commission, Fourth Report (1983) on Special Assistance for the Northern Territory; p83. Canberra: AGPS.

(a) Excludes Commonwealth share of Royalties

But the mining industry and the question of mineral royalties is another area where ambiguities creep in to judgements about the Everingham government. The Territory government in 1981/82 sought to capture some of the economic rent from mining in the Territory. This was to rectify a situation where upon achieving self government the Territory government found that the before-tax profits royalties on minerals was about 28.5 per cent of the Australian average (cf Green Paper 1981, 136). The intention was to increase this return with a more rational (in economic terms) policy.

There was great confusion over the Mining Royalty Bill (cf Heatley 1983). At one stage the government had to rescind the Second Reading because of confusion over appeal provisions (NT Parliamentary Debates 2 June 1982). The original proposal was for a 35 per cent profit-based royalty and for the allocation of leases by an auction system. The royalty figure was reduced to 18 per cent even though the NT Chambers of Mines wanted a rate of only 7 per cent (NT News 22 May 1982). The auction system was abandoned and existing mining leases were exempted from the provisions of the Act. Royalty payments were calculated on 18 per cent of profits less $9,000, an obvious concession to the small miners (Mineral Royalty Act 1982, S10(1)). The exemptions of existing leases, apparently for legal equity and constitutional reasons (Heatley 1983, 17), deferred any gain to the Territory to the long term future, though Nabalco was prevailed upon to pay the maximum royalties applicable under its 1971 agreement

with the commonwealth. So the Territory despite the apparent good royalty returns, when measured in per capita terms (cf table 4), has a royalty regime that attracts considerably less than the 10 per cent ad valorem royalty standard for other states. The per capita value of mineral production in the NT is 4.5 times greater than for NSW, and six times greater than for Victoria. yet the per capita royalty payments to the Territory are only approximately twice the NSW figure and only 20 per cent greater than Victoria. Though it is not per capita figures that measure the vigour of a royalty system they do provide one indicator to reveal that the Territory is not garnering its full potential of royalties from the mining sector.

The question of royalties then leads on to a more detailed examination of comparative budget figures for the Territory and the standard 'core' and 'outer' states.

The Budget in the Territory's Political Economy

The annual Budget is the key to understanding how an Australian government works, what it seeks to do - the 'who-gets-what' of politics. Obviously exogenous factors influence any budget, in the Territory's case principally the level of commonwealth funding followed by the general levels of economic prosperity (or otherwise) of Australia and the advanced capitalist countries. These latter elements are completely beyond the control of the Territory government, though of great import to it.

International prosperity can create a demand for commodities, hence increasing prices and thus the return to the Territory budget through bauxite and manganese royalties. An American Presidential election year bodes ill for the Territory beef exports. The general state of the Australian and international economies can affect the Territory in a number of ways. The tourist industry, considered one of the best possible future employment generators for the Territory (cf Stanley 1984), is an example.

Since the late 1970s the rate of return on investment in tourist facilities has declined. While total numbers of tourists have increased steadily there has been a decline in real (inflation-adjusted) terms in expenditure by these visitors. In 1978/79 'tourists' (intra-Territory travellers are included in the NT government's statistics) in the Territory spent $85 million or about $275 per capita. In 1981/82 the return was $262 per capita, a decline in the real rate of return per tourist/visitor serviced of approximately 28 per cent (cf table 5).

TABLE 5

NT Tourism 1977/78 - 1981/82

Visitors	1977/78	1978/79	1979/80	1980/81	1981/82
Interstate and Intra-Territory	172,000	250,000	275,000	296,000	371,930
International	54,000	59,000	55,000	54,000	39,270
Total	226,000	309,000	330,000	350,000	411,200
Expenditure (est.)	N/A	$85m	$98m	$110m	$108m

Source: NT Tourist Commission Tourism Monitor.

The growth in tourist visitor numbers has been for intra-Territory travellers, the least profitable market segment. In 1981/82 each international visitor spent $414, the intra-Territory visitor only $105. The more expensive segement of the industry, hotels and motels, badly needs an influx of interstate and international tourists. This is unlikely to occur while the international and Australian economies are not yet recovered from recession.

The problem for the Territory government is that the stagnation of the tourist industry affects the Territory economy's general demand for goods and services. An expanding tourist industry is an NT Budget imperative because tourism, being labour intensive, can soak up unemployment (the unemployed place an extra burden on Territory welfare services) and contribute to Budget revenues. Almost 20 per cent of the revenue raised by the Territory government comes from payroll tax.

The Territory is better able to influence the level of commonwealth funding. This is because under the Memorandum of Understanding negotiated with the commonwealth in 1978, the Territory is treated in a fashion similar to a claimant state (cf May 1971; Mathews 1983) in that the Commonwealth Grants Commission (CGC) assesses the Territory's overall needs under the special grants provision of the Memorandum. This has resulted in very generous funding levels from Canberra, as detailed above. The Territory government is very sensitive to any threat to review these arrangements, suspecting that any review will lead to reductions in overall funding.

In 1982 the Territory agreed to be included with the states in a Grants Commission review of health funding needs, obtaining a large proportion of the extra monies subsequently granted. But this fortunate experience has not allayed the Territory government's suspicions. The Territory government's reaction has been twofold; firstly, to claim (spuriously) that the Memorandum of Understanding has constitutional status, - a claim used to good effect in the 1983 Territory election to counter the Territory ALP opposition's arguments that it could secure a better deal for the NT from the Hawke Labor government (cf Gerritsen 1984). Secondly, the NT government vigorously denies the allegation that it receives funds disproportionate to its needs. In 1983 the Treasurer, Perron, claimed:

> Of interest is the first time payment of the special grant of $16.9 million, based on the assessments of the Grants Commission. It is disturbing to hear simplistic suggestions that the Territory is in some way over-funded. The Commonwealth Grants Commission, the expert and independent arbiter in such matters, has found that the Territory has been, in fact, under-funded and has recommended the payment of a special grant. It is to be hoped that the Commission's findings in this highly complex area will lay to rest the damaging comments of those seeking to erode the Territory's rightful share of Federal tax revenues (NT Budget Speech (1983-84) Budget Paper No. 1, p27).

Treasurer Perron did not fully inform the Legislative Assembly of the circumstances of this grant. He neglected to mention that though the grant was received in the 1983/84 Budget period, it was for special needs as assessed in 1981/82, some two years previously (CGC 1983,58). Also the special grants were provided under a program of special assistance grants under the Memorandum of Understanding, and due to end in 1984/85.

The NT Treasurer's lack of candour probably masked some anxiety about the methodology of calculating the Territory's fiscal needs. There is evidence for some unhappiness about this matter on the part of the Grants Commission. Because of deficiencies in the Territory's economic data base the Grants Commission does not use the factor assessment methodology it normally applies to estimating the states' needs. Instead it is forced to use a modified per capita difference methodology, which the Grants Commission suspects advantages the Territory (cf Mathews in this volume; see also CGC 1983a:11). The Commission

has noted that the general levels of Territory taxation are the lowest in Australia (with the part exception of the ACT) (cf CGC 1983a:tables B1-B17, pp38-57). Territory payroll tax is exacted at 4.5 per cent versus the 5.0 per cent everywhere else in Australia. And the second largest Territory revenue earner, stamp duty on conveyancing, is similarly below the 'standard effort' (CGC 1983:table 4-1, p50).

The Territory has some grounds for its fears that its funding levels are threatened. That it had a 'positive Budget result' (i.e. a Budget surplus) in 1981/82, where deficits are common for the Grants Commission's 'standard' States of NSW and Victoria, indicates that its government has more room for fiscal manoeuvre than the other states. This has enabled the Territory governing party, the CLP, to adjust to the 'political-economic cycle' and to obtain victories in two successive elections 1980 and 1983. The 1983 campaign was stereo-typical of the supposed 'Canberra-bashing' style of the outer staples states and popularised by Premiers Court and Bjelke-Petersen. But some evaluation has to be made of the substance beneath the ideological or partisan rhetoric of the 1983 Territory election.

That election has to be seen in the context of the Territory government becoming aware that it was entering a period of severe economic problems and seeking room to manoeuvre politically. 'Canberra' was a traditional distraction to the real socio-economic problems of the NT. Nowhere can this be better seen than in the issue of electricity pricing. This warrants a digression to reveal the complexities raised by the issues of commonwealth funding. The Northern Territory Electriciy Commission (NTEC) receives a commonwealth subsidy, initially introduced as a cost compensation measure and part of the package of additional benefits negotiated by the Fraser and Everingham governments under the Memorandum of Understanding. The subsidy was to reduce the real retail cost of electricity in the Northern Territory to northern Queensland levels.

Initially the subsidy was an informal arrangement whereby the commonwealth agreed to meet the difference between the NTEC's operating costs and its revenues. In 1983 the subsidy was formalised and an agreement signed a month or so before the Fraser government's defeat in the 1983 election. Future subsidies were to accord with a fixed formula that was based upon the subsidy paid in 1980/81, escalated by cost increases but including an automatic adjustment to take into account NTEC's future load growth. The Commonwealth Treasury had been concerned about the previous open-ended federal commitment; the new formula determined the amount of subsidisation. It would no longer automatically meet the NTEC operating deficit. NTEC could expect tariff increases of up to 25 per cent within 18 months. This situation created some hazard for the Territory government which faced an election by mid-1984.

The fuel cost element of the subsidy had also been redefined, to the disadvantage of the Territory. The fuel costs increases element of the subsidy was to be escalated by various indices of fuel prices. But these were to be based on fuel oil costs FOB in Singapore, not CIF in Darwin. This left the Territory vulnerable to any commonwealth excise increases (as was obviously intended by Commonwealth Treasury, which was opposed to the subsidy arguing that it allowed or created artificial electricity demand).

In July 1983 a tariff increase of 8.3 per cent was introduced, ostensibly to bring Territory tariffs into line with those in north Queensland. On those grounds it was unjustified as the Territory has just negotiated away that standard. The tariff increase was to maintain the sound budgetary situation for the NTEC that was a requisite for a pre-election period.

The political opportunity for the CLP government arose with the Federal Budget in August. The electricity subsidy was increased by the Hawke government, from $57.106 million by 12.9 per cent to $64.5 million. This increase was unexpected; the NTEC had budgeted for a subsidy increase of only $594,000 (NTEC 1983/84,3). But the Federal Budget had introduced an excise levy on fuel oil. There was some ineptitude on the part of the federal bureacracy in that the excise charge and the expected collections had originally been

miscalculated, and this provided the publicity that was adroitly manipulated to create a climate of opinion that overlooked the massive $6.8 million increase in the NTEC subsidy and focused attention on the $3.3 million cost to NTEC of the fuel oil excise.[2]

It was a propaganda coup for the Territory government and one that accorded with its overall political strategy for the forthcoming election.

The Territory reaction to the Federal Budget's fuel oil levy was to announce that in January 1984 there would have to be a 6.3 per cent tariff rise. January fell in between the periods designated as election possibilities. This projected tariff rise followed others - in October 1981, April 1982, June 1982 and July 1983 - and replicated a pattern general for Australian utilities. The NTEC was gradually reducing its accumulated financial deficit. This practice - known elsewhere as filling 'hollow logs' - is revealed in the Territory's own Budget papers. It was done by over-estimating costs and using the non-budgetary savings to reduce the post-subsidy accumulated deficit. For example NTEC estimates in 1983/84 that fuel costs would rise over the actual expenditure in 1982/83 by $5.39 million or 12.2 per cent (NTEC 1983/84). In 1982/83 NTEC has over-estimated total fuel cost increases; they budgeted for a 20.1 per cent increase in the cost of fuel over 1981/82 (NTEC 1982/83) when it turned out to be only 9.7 per cent, too large an error not to have been deliberate. Operating expenditures were similarly over-estimated. Revenues have been more plausibly and conservatively estimated; for 1983/84 a load growth of 4.6 per cent was expected to give a 15 per cent increase in sales revenue. These procedures reduced the NTEC's accumulated deficit. At the end of the 1981/82 financial year the NTEC accumulated deficit was $5.868 million. By July 1983 it had been reduced to $2.778 million; in 1983/4 it was budgeted (even without a federal subsidy increase) to be reduced to $1.397 million (NTEC 1983/84,3).

The Territory government in the aftermath of the Federal Budget used the electricity price issue as part of a general political campaign to make the 'control from Canberra' issue central to any election. This occurred in a situation where the Territory was facing growing economic problems. Canberra provided a winning distraction. The roll-call of issues was large - the Alice Springs to Darwin railway, the Jabiru liquor licences, uranium, Uluru national park, the national land rights legislation (cf Gerritsen 1984).

All these issues require analysis in the detail accorded the electricity tariffs issue to determine whether they were merely political gimmicks or reflected deep-seated developments in the political economy of the Territory. Simpler for our present purposes is to examine aspects of the Territory Budget of 1981/82, when standardised against expenditures and receipts for Victoria and NSW in that year (cf Table 6 below). If significant differences emerge between NSW-Victoria and the Territory it may suggest some firm positive evidence, in distributional terms, for the Territory's adherence to the staples states model.

The problem in estimating disparities between Territory and NSW or Victoria expenditures and receipts lies in the non-conformity of the data. The Grants Commission is forced to adopt new proceedures in estimating Territory Budget data because of various difficulties with the estimates for the base year (problems such as separating out recurrent from capital spending). This means that there is danger that the Grants Commissioner's needs assessments might reflect NT policy priorities rather than the 'disabilities attributable to factors beyond the Territory's control' (Mathews in this volume). Nevertheless the Grants Commission estimates remain the best we have. They have developed what they call 'Implied Disability Factors' which can be set against the Territory's budget figures to determine whether the Territory is making a 'standard' or 'sub-standard' effort. There are several disabilities the Territory suffers in delivering government services. It has a much higher proportion of children under 16 years than the national average (though a lower proportion of elderly partly balances this problem). Twenty-five per cent of Territorians are Aboriginals, mostly living in small scattered settlements. The Territory government administers one sixth of Australia but has a population of

only 140,000 (approximately). Transport costs to the highly dispersed population are very high. In a service sense the Territory suffers profound diseconomies of scale.

But some caveats should be made about this methodology of applying Grants Commission disability notions to evaluate the political temper of the Northern Territory government.

The Grants Commission uses the standard states, NSW and Victoria, as benchmarks to judge the financial needs of other states. I intend to use these states as theoretical exemplars of the central secondary manufacturing states and 1981/82 as the comparative fiscal year. The direction of left theory suggests that NSW and Victoria will have budgetary distributional outcomes significantly different from the staples states models; probably the distinction being sharpest in the health, culture, education and welfare areas. The primary, distributional outcomes of government spending are posited as being a better measure of a state's politics than the ideological or partisan aspect of politics. The ultility in comparing these three states or territories in 1981/82 lies in the fact that for that fiscal year Victoria had a non-Labor government. So the NSW-Victorian standard is free from party political bias in the budget figures. The weakness in the methodology lies in the non-inclusion of Western Australia and Queensland as a 'control' for the supposedly standard staples states model. Nevertheless the Grants Commission methodology if it discriminates does so in favour of the Territory. In its 1983 submission to the Grants Commission's inquiry into assistance for the Territory (CGC 1983) the Commonwealth Treasury argued that the federal government had entered into an open-ended commitment to the NT by not using the usual factor assessment method applied to the states. The Territory could have its needs assessed by reference to its actual expenditures even if these reflected above-standard services or below standard taxation efficiency. Treasury noted that Territory expenditures had (until 1983) only been changed '... in the direction of giving it credit for non-performed or below standard services' (Mathews in this volume). Treasury drew particular attention, for example, to the low effort (i.e. low charges) by the Territory for water and sewerage rates.

Even while drawing attention to the fact that the effectiveness of many Territory expenditures have been so low - educational outcomes, health status or housing conditions 'often bear little relationship to amounts spent on education, health or housing services' - Mathews eschews political judgements about the Territory government:

> If the Grants Commission were to continue to use the modified per capita difference approach, it would inevitably have to make judgements not only about the Territory's differential policies in relation to particular services but also about the effectiveness of those policies. There would be a real danger that the Commission would then appear to be making political judgements, which as an independent body concerned only with relativities it is not qualified to make, and which in any case are the prerogative and responsibility of the elected government of the Northern Territory. (Mathews in this volume).

This paper also does not propose to examine the effectiveness of the Territory government's policies. But I do argue that the Territory's 'differential policies in relation to particular services' is central to evaluating the political typology of the CLP government.

The results, as shown in Table 6, are quite dramatic. It becomes apparent that in 1981/82 the CLP government of the Territory provided less for the social welfare of its citizens, even allowing for the disability factor, than did the Liberal and Labor governments of Victoria and NSW respectively. Yet, as table 6 demonstrates, the Territory enjoyed a much more favourable budgetary situation than the two 'standard' core states.

Table 6

1981/82 Budget Summary: Per Capita Statistics

(all figures in dollars)

	NSW/Vic (average) ($)	NT ($)	NT Implied Disability Factor (a) (NSW/Vic=-.0)	NT Performance at Standard ($)	NT Above(+ve) or Below(-ve) Standard (%)
1. Revenue					
Cwlth Revenue payments	541.36	3178.34	n/a	n/a	+ 487.1 (d)
Taxation	415.83	225.93	0.7790	323.93	- 31.3
Territorial Revenue	51.09	33.09	0.8633	44.1	- 25.0
Interest Earnings	7.85	59.38		6.77	+ 877.1
2. Expenditure					
A) Social Services					
Education	387.07	809.78	2.0985	835.34	- 3.1
Culture and Recreation	16.25	125.43	8.0215	130.34	- 4.6
Health Services	262.14	655.35	2.5325	663.86	- 1.3
Welfare Services	31.87	99.16	3.1120	99.17	- 0.1
Law, Order and Public Safety	73.14	397.53	5.439	397.80	- 0.1
Essential Services - remote communities	0.04	191.57	n/a	n/a	n/a
B) Other Expenditure					
Legislature	5.55	52.29	9.4281	52.3	- 0.1
Administrative Services	60.06	273.03	3.9463	237.01	+ 15.1
Community Services	9.05	114.11	12.6140	114.15	- 0.4
Regulatory Services	6.71	71.13	10.6006	71.13	-
Services to Industry	25.97	236.98	8.5445	221.90	+ 6.7
Natural Disasters	0.48	-	n/a	n/a	n/a
Items n.e.i.	- 0.19	1.13	n/a	n/a	n/a
Debt Charges	29.55	179.35	6.0694	179.35	-
C) Business Undertakings					
Non Metropolitan Transport (b)	58.10	- (b)	1.0	n/a	n/a
Metropolitan Transport	65.77	21.32	0.1963	12.91	+ 65.1
Water Supply and Sewerage (c)	7.69	136.76	n/a	n/a	n/a
Irrigation and Drainage	14.04	-	n/a	n/a	n/a

Source: CGC 1983; NT Budget Papers 1981/82; Mathews (in this volume).

(a) Derived from Mathews in this volume.

n/a Not applicable (not comparable or not calculated by Grants Commission).

(b) Railways and other non-metropolitan transport.

(c) Country only for NSW and Victoria (all-inclusive for the Northern Territory).

(d) This is simply derived by taking NT per capita allocations as a percentage above the NSW/Vic Average standard. There is no 'global' disability factor to use in calculating the NT's performance above or below its posited standard.

The 1981/82 Territory Budget figures supply some (though not conclusive) evidence that the Northern Territory fulfils the WA-Queensland staples state model insofar as governmental expenditures and taxation are concerned.

On the supply side, the Territory's revenue raising effort is 31.3 per cent less than standard. The consequences of this have been masked by the very large payments the Territory has received from the commonwealth. The Territory government has opted for very low taxation with relatively low social services expenditure. Budget surpluses have been registered within this fiscal strategy, hence the very high interest earnings figures, because of generous allocations from Canberra.

There are two political concomitants of such a strategic economic framework:

(i) It exacerbates the degree of dependence upon Canberra and hence intensifies the Darwin-Canberra relationship because of the Territory's extreme dependence;

(ii) It is an economic strategy that relies on heavy private investment inflows to create employment (the earlier remarks on the decline of the Territory's capital works expenditure are relevant here). The Territory government has a strategy that relies upon 'foreign' (interstate and international) investment to provide the ultimate consumption stimulus for the economy.

These two factors are revealed in the earlier remarks about the central political focus of the Territory being Canberra, and in the 'services to industry' expenditures in the Territory budget (cf table 6 'Other Expenditure'). The only expenditures significantly above the disability-adjusted standard (except for metropolitan transit) are under 'services to industry' and 'administrative services' (the latter not unexpected given the importance of the public sector to employment).

This factor confirms some of the earlier remarks about the role of the state in the Territory - to support private enterprise development.

The figures presented in table 6 have to be regarded with some reservations. There is the effect upon them of the allowance made for non-performed services in remote Aboriginal communities. This affects in particular primary education and health figures. Also Mathew's figures for the implied disability factors are influenced by the per capita difference method used. If the factor assessment methodology, usual in evaluating state budgets, were used then for pre-schools, government primary schools and general medical services, the disability would be less than currently calculated (conversely for secondary schools it would be greater). This suggests that the Territory may have an even worse expenditure record than indicated here.

Conclusion

This paper has introduced the investigation of Northern Teritory political economy from a perspective derived from the left model of Australian federal political economy. This model has two basic propositions.

(i) that the political relations betweeen the states or territories and the commonwealth have been shaped by the regionally dissimilar

economic development of Australia over the last twenty or so years - in particular by the development of the mining industry, a staple production that is heavily concentrated in the northern and western territories of Australia.

(ii) that the internal as well as the federalist politics of these staple-producing states or territories have been largely determined by the staple production (i.e. that these states act politically in the interests of mining capital). From this follows a general pattern of political behaviour by the staples states that is markedly different from the patterns in the core secondary manufacturing states.

The left staples states model applies, prima facie, to the Northern Territory. Mining is more important to the Territory economy on a per capita basis than for any other state. Cattle and fisheries are other staple activities of some historic significance. Hydrocarbons may be a major future export earner. The major economic difference between the Territory and the 'conventional' (Queensland and WA) staples states is in the role of the public sector. Public sector employment is much more important for the Territory than anywhere else in Australia, with the exception of the ACT. This employment and its ancillary demand creation depends upon disbursements from Canberra. Commonwealth payments have been of such a scale, because the grant formula is so advanatageous to the Territory (apart from the compensation for disability factors discussed above the Territory also receives positive adjustments for population growth, the only state to receive this in-built grant inflator), as to allow the Territory government to pursue a 'classical' conservative economic strategy. The Territory's rapid economic growth between 1978 and 1982, fuelled by private investment but underwritten by Commonwealth-funded infrastructure, has justified this ideology. It is the ideology, fashionable in non-Labor circles, of the minimalist state (cf Sawer 1983) and is held as strongly by the CLP as by other Australian non-Labor parties (despite the Territory's dependence on commonwealth taxation disbursements!).

But the Northern Territory since 1982 has entered a period where the contradictions between its government's political strategies and economic realities are intensifying. If the NT government continues to pursue its politically popular low taxes and charges strategy, it will suffer at the hands of the Commonwealth Grants Commission. That authority has been seeking since 1981 to discount disbursements to the states under the tax sharing arrangements where those states make below standard revenue raising efforts. The Territory is likely by 1986 to receive lower payments from the Commonwealth to account for its below standard revenue raisings. The Territory is faced with a situation where private sector growth has slowed and some of the public sector revenues that arrive in a politically painless fashion from Canberra will have to be replaced by the Territory government by the politically more painful extra state charges and taxes. These impending difficulties reverberated through Territory politics in 1983. 'Canberra' or the Hawke Labor government became the bete noir (in public at least) of a CLP government anxious for the future and conscious that its options were fast closing.

Despite some caveats arising from the political impact of these particular economic circumstances and the partisan ideological choices of the CLP, the staples state model hypothecated from Stevenson and the left political economy

school fits approximately the description of the Northern Territory's politics. However the overwhelming, and unique importance of the public sector in the Territory economy does suggest that the model may need to be refined before the NT can unequivocally be placed within the staple states paradigm.

The importance of the public sector suggests a variation of the usual staple states model. The public sector employees, because of the not-yet-independent status of the Territory, naturally share with its government a keen concern to protect the political autonomy of the NT. Their careers are vitally concerned. This then suggests a parallel, re-inforcing tendency to that engendered by the staple industries on Territory - commonwealth relations. The existence of the Northern Territory variant of the staples state paradigm provides justification for further research on the standard staple states to ascertain whether further refinements of the model are required. For example, the overwhelming dependence of the Territory upon Commonwealth disbursements suggest that NT - federal government relations may have a level of intensity not usual for the standard staples states' relations with Canberra. This could only be evaluated by comparative research incorporating the NT, Queensland and Western Australia. Certainly further research is needed before a model with any sound predictive value can be developed for the Northern Territory.

Footnotes

1. The difficulty of subjective judgements about political events and the choice of evidence is well illustrated here. In 1984 the Territory government joined the Central Australian Aboriginal Media Association in submissions to the inquiry into the AUSSAT satellite program services deploring the likely effect these would have on Aboriginal communities (Australian 1 March 1984). This could indicate some sympathy towards what is supposedly an Aboriginal viewpoint, or else a reinforcement of Territory conservatives' 'traditonal' view that the ('real') bush blackfellas are being corrupted by Westernisation and western 'stirrers'. Similar fears of Aboriginal Westernisation do not appear to have affected the Territory government when in March 1984 it joined with the Northern Land Council to pressure the federal government to reverse its policies and allow uranium mining at Jabiluka and Koongarra in the Kakadu National Park.

2. NTEC and the Minister claimed that the fuel oil levy would cost the Territory electricity consumer a 6.3 per cent increase in tariffs to pay. That was true if the extra cost of the levy was subdivided by the total number of Territory consumers. But it ignored the total NTEC financial picture. They had budgeted to reduce their accumulated deficit by $1.381 million without price rises and with a federal subsidy increased by only 1 per cent over the previous year. The net increase in funding for the Territory (subsidy minus oil levy cost) was over $3.5 million. It should have been possible on the NTEC's own expenditure and receipt projections to maintain electricity prices at stable levels. That it was not so indicates that either the NTEC's figures were of dubious validity (possible because they have a bad record of forecasting); or that the figures were tailored to the exigencies of the 1983/84 political economic election cycle.

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NORTHERN TERRITORY - A PLAN FOR DEVELOPMENT

RAY McHENRY

'It is a common Australian comment to remark how close Northern Australia is to Asia; it is rare to comment on how far Northern Australia is from the regions where most Australians live'.

This observation was made almost 20 years ago by Professor Geoffrey Blainey and well-publicised in his book The Tyranny of Distance. Blainey was exploring the effects of distance and isolation on the course of Australian history, but many of his arguments could equally be applied to the settlement and development of the Northern Territory in relation to the rest of Australia.

Distance and isolation are factors that Territorians must live with, and in fact most of them would make the necessary adjustments without thinking a great deal about the profound effects that these factors have upon their lives.

Nevertheless, the effects of distance and isolation are real enough and even now, in this age of rapidly improving communications and transport links, continue to be arguably the primary influence on the pace and direction of development in the Territory.

With this in mind it is appropriate now to look back over the Territory's first five years of self-government and take an objective look at just what we have achieved in the way of development and how the path of development has been, and continues to be, directed by the Territory's geographical position as part of Australia but at the same time isolated from the country's major centres of population, industry, commerce and government.

Territorians tend to be very future-orientated. We have a young population, both in terms of the length of time that areas of close settlement have been established, and in terms of the average age, with about 80 per cent of the population being below 40 years of age, compared to a national figure of about 65 per cent below 40.

The pace of settlement and development has been very fast in recent years, causing Territorians to look to the future rather than dwell on the past. The devastation of Cyclone Tracy in 1974 spurred the pace of development by focussing national attention on Darwin and resulting in a massive rebuilding effort which continued far past the point of replacement of the original facilities.

Statistical records of Northern Territory production in recent years bear out the picture of continuous and considerable growth.

The value of mining production grew from $208 million in 1977-78 to $455 million in 1980-81.

Retail sales grew from $176 million in 1976 to $334 million in 1980, while retail turnover over the same period grew from $192 million to $384 million.

Manufacturing turnover grew from $127 million in 1975-76 to $292 million in 1980-81.

The number of visitors to the Territory's tourist attractions rose from 226,000 in 1977-78 to 440,000 in 1981-82. Their estimated expenditure grew from $85 million in 1978-79 to $120 million in 1981-82.

The value of agricultural production, which admittedly is very much in its infancy in the Territory, grew, in just one year, from $128,600 in 1980-81 to

$523,900 in 1981-82. Over the same period horticultural production rose from $776,500 to $1,123,000.

But economic statistics tell only part of the story. The people of the Territory are the other part, and it is a moot point whether economic growth has followed the population increase or vice versa. Regardless of that, in the five years since self-government, the Territory's population has grown from 115,000 to 129,500. This represents an average annual increase of 5 per cent, compared to a national average over the same period of 1.5 per cent.

These figures reflect major growth in the Territory economy and they are the basis for the Government's promotion of the Territory as a prime area for investment and business ventures. The figures are real enough, but the other side of the coin is the relatively small base upon which they are calculated.

Darwin's population is 61,000, the size of a substantial regional town in the eastern States. The population of the next largest centre, Alice Springs, 1,500 kilometres away, is 20,000. If you compare the total population of 129,500 to the Territory's area of 1,346,000 square kilometres, you come up with an average of about one person per 10.5 square kilometres.

In summary, we have in the Territory a very small population, a huge area, and a significantly growing economy. This creates some peculiar problems for us in guiding the development of the Territory. Possibly these problems are shared by other developing regions, but in Australia our situation is unique and for that reason it is often misunderstood.

People say that you have to live in the Territory to appreciate it, and that is probably true. The lifestyle, particularly in the Top End, is different from that of any major population centre interstate. It is a lifestyle that has evolved to minimise the discomforts and inconveniences of the environment, and to exploit its advantages.

Sport is extremely popular here, which is probably not too surprising considering the young average age of the population, but it is also true that we lack a wide variety of cultural pursuits that would offer an alternative diversion. In Darwin we do not have the proliferation of art galleries, theatres, concerts and other cultural diversions such as you expect to find in any other Australian capital city.

Visits to Darwin by touring overseas entertainment acts are very rare, and even visits by Australian artists are an uncommon event. It is a long way from the East coast, and travelling costs for artists with their bands, equipment and assorted paraphernalia are very high, making the profitability of such a venture tenuous indeed.

In sport the Territory's isolation rules out the chance for regular interstate competition. Undoubtedly the standard of sport here suffers for that reason, but against those odds we have turned out several notable champions over the years. However, I must admit that the best of them usually go south either to play in interstate teams or to train in a more competitive environment.

Because of the limited size of the television audience here, the paucity of major television advertisers and the general availability of only two television channels, we cannot always get the wide national sporting coverage that most other Australians enjoy.

The local response to the lack of such services and entertainments has been to take maximum advantage of what we do have.

Family camping excursions have become institutionalised and probably raised to the peak of their art form in the weekend 'down the track'. You will see more four-wheel drive vehicles per capita in Darwin than in any other capital

city, and I would think that most of them are used for their intended purpose at least occasionally.

I have already mentioned the local preoccupation with sport. Fishing and hunting are also enjoyed here to a degree which is not possible for the greater part of the population elsewhere in Australia. It is a proud local boast that during the magpie goose hunting season you can get your goose within a 15-minute drive of the Darwin Post Office. And it is true - in fact with a bit of luck you could probably get a buffalo too.

But while the Territorian lifestyle might have adapted successfully to suit the environment and the social conditions, the same thing cannot be said of the economy.

Economic realities must be faced, and this has posed a considerable challenge for Territory planners. The basic elements which have to be reconciled are a very small population which consititutes a limited consumer market, the high cost of local manufacturing with additional freight charges, and the reasonable expectations of Territorians to enjoy a standard of living not lower than other Australians.

It is generally accepted that all Australians are entitled to a common high standard of living, but in the Territory there is a premium to be paid to maintain that standard. The cost of living in Darwin is the highest of any Australian capital city, and Territorians generally do not have ready access to as wide a range of goods and services as are available to most people in the eastern and southern states.

Many consumer items are brought from interstate and incur heavy freight penalities. While this disadvantage might be offset to some degree for consumers by higher wages in some areas, it adds to the costs of running a business.

Nearly all Territory business enterprises could properly be termed 'small business'. They manufacture only a small proportion of local consumer requirements.

One of the basic aims of development policy is to manufacture locally those items which are now brought from interstate, and to establish enterprises that will create employment and generate revenue and money movement within the Territory.

But there is little point in attracting companies to the Territory if the local market is not big enough to support them.

Local products often must carry a price premium to offset the manufacturers' higher costs in wages, freight and distribution, and the economics of gearing production to meet demand in a relatively small market.

It is tempting to believe that local consumers would be far-sighted enough to see the ultimate benefits of buying higher-priced local products in preference to cheaper interstate alternatives, but in reality price is often the deciding factor.

It is particularly hard to convince a businessman that he should buy local manufacturing components and perhaps jeopardise his profitability when a cheaper line of supply is available from interstate.

This is not to suggest that we do not have manufacturers who can produce a cost-competitive product. We do; in fact local products are more than competitive in some lines. But the factors I have been outlining are significant in general terms throughout the private sector.

The solution to the problem is to increase the size of the market, and fortunately Darwin is in an excellent position to do that.

The Territory's population increase, while impressive in terms of percentages, has much less impact in terms of quick market growth. We are looking further afield to markets in South-East Asia and the Western Pacific region to support manufacturing and other export-orientated ventures in the Territory.

The opportunities in this area are extremely bright and give Darwin the potential to become a major economic force in the region.

Australia, and in particular the Northern Territory, can be identified as part of a major trading bloc known as the Western Pacific region.

This region, which extends from Japan, through Eastern Asia and South-East Asia to Australia, and includes Oceania and the Pacific Islands as far as Fiji, is currently the most dynamic region in the world in terms of economic growth.

Over the past decade the increase in GDP in real terms in the region averaged an estimated 5 per cent annually. In the last two years the growth rate of GDP has averaged 7 per cent annually, and projections point to an average annual economic growth rate as high as 8 to 9 per cent towards the end of the decade.

A number of indicators suggest that in the late 1980s the Western Pacific region will become the largest market in the world. At present this region has a population of 1,500 to 1,700 million people. By the 1990s this population can be reasonably expected to have grown to 2,000 million.

The Northern Territory is situated relatively central to this region and is ideally suited as a trading base to service this, the fastest growing economic region in the world, and what will become the largest market bloc in the world by the mid-1990s.

There are a number of developments which the Territory could stimulate in response to this future regional market.

Resources exports and possibly processing of minerals could be increased, particularly if energy is available at cost effective rates given the possible development of liquified natural gas resources and petroleum reserves in the Territory.

An extensive food processing industry involving marine and land-based food resources, could be developed to supply the market.

A manufacturing industry base with the ability to take advantage of market opportunities offered by high technology could be developed. Here the Territory would possibly seek technology and investment capital from sources such as Japan and the United States in joint venture arrangements with local entrepreneurs and utilising the advantages of a skilled and well-educated workforce in a capital intensive manufacturing environment.

An extensive range of consultancy and financial services could be made available to the region, for example the development of an 'offshore' banking operation. A University in Darwin could develop skills relevant to the region in such areas as agriculture and engineering.

The Territory could possibly develop into a regional centre from which trans-national corporations from the United States, the Europeam economic community and other extra-regional countries could service the region. Foreign companies are expected to find it more difficult to operate in countries such as Singapore, Malaysia and Hong Kong as the Governments of the region legislate to favour local companies. Darwin could be the ideal alternative location enabling efficient servicing of the region.

The region could be developed as a major market for the Territory tourist industry. The per capita income and standard of living of many countries in the region is increasing rapidly, particularly in countries such as Japan, Korea, Malaysia, Singapore and Taiwan. This trend is expected to continue at least into the 1990s. The net result of this growing affluence is an increase in mobility of the population.

With the development of domestic tourism infrastructure in the Territory and improved air links between Darwin and Western Pacific region ports, the region has the potential to be our biggest overseas tourist market by the 1990s.

These are not fanciful proposals. We are working towards them right now. Already we have seen developments in these areas.

As a result of the Northern Territory ministerial mission to South-East Asia and Japan in June this year, tour operators from Hong Kong and Japan have visited the Territory with a view to packaging local tours.

Royal Brunei Airlines has commenced a direct flight into Darwin with connections throughout South East Asia. The Yulara Resort, a $150 million tourist development near Ayers Rock, is already catering for visitors to the Territory's premier tourist attraction. The international hotel planned as part of Yulara and now under construction will be operated by Sheraton.

This international hotel chain has also agreed to operate an international hotel planned for Alice Springs. Sheraton's move into the Territory's tourism and hotel industry will add considerable prestige and management expertise to the industry, as well as giving the Territory access to Sheraton's booking network of 450 hotels throughout the world.

Another international hotel now under construction in Darwin is combined with a 1,200-seat performing arts centre in the $48 million Darwin Centre. This project is being financed by Malaysian investors.

Malaysian investment is also behind the $10 million Raffles Plaza apartment building. Sales of the residential units at prices up to $250,000 are proceeding well, and local investors are planning a similar luxury apartment development.

Another Darwin high-rise residential development, worth $11.5 million and consisting of 63 luxury apartments, is nearing completion.

The Federal Government's uranium policy will have an adverse effect on the Territory's mining industry, as I am sure you will have read or heard in the media recently, but offsetting that we have the recent oil discovery in the Jabiru 1A well in the Timor Sea 640 Kilometres west of Darwin.

Early tests indicate oil reserves in commercial quantities, possibly equalling or even surpassing those of Bass Strait. The potential is still to be proven, but we have every reason to believe that oil could provide a massive boost to the Territory's economy.

Already we are seeing some benefits from the exploration program with negotiations to establish a ship servicing facility for exploration support vessels.

Oil and gas is already being produced in commercial quantities and for commercial consumption from the Mereenie Field near Alice Springs, leading to a plan to establish an oil refinery.

Exploration is continuing in the Amadeus Basin encompassing the Mereenie Field where the possibility of undiscovered reserves still exists.

To complement this economic development we are looking to improve service and public amenities.

The Federal Government has delayed reconstruction of the Darwin Airport terminal to 1986. In the meantime travellers, including tens of thousands of overseas and interstate tourists, must put up with an outdated, inadequate facility. The Alice Springs Airport is also now inadequate for the number of travellers passing through it.

The Territory needs a university, primarily to obviate the need to send our young people interstate for a university education, but also for the prestige it would bring to the Territory's capital, and for the very real benefits that academic research can provide to local industry and commerce.

And of course we are still pursuing the case for the extension of the Railway from Alice Springs to Darwin, although I am sure that you would have heard most of the arguments in support of our case by now.

The Territory Government is aggressively pursuing these and other developments, but the primary handicap is related to our very small population and the resultant reliance on Federal funding for development in the public sector.

I will not labour the issue of the Territory's relationship with the Federal Government over funding requirements - that is a concern for our Chief Minister. Suffice to say that we have had some disappointments with planned projects as regards Federal funding.

But intial dismay has fostered innovation and forced us to take a new look at the Territory's future.

If necessity is indeed the mother of invention, then the Federal Government may very well turn out to be the unwitting architect of a new era in Territory development.

We are on the threshold of a major re-orientation of Darwin's regional identity. We will continue to look interstate for investment and development support in the private sector, but our development focus will be to the north. What we will be saying to people is, come to the Northern Territory and let us put you on the doorstep of the largest potential market in the world.

By aligning our development aims in a South-East Asian - Western Pacific Region context we believe we have embarked on our own 'great leap northwards'.

Geographically we are a part of South-East Asia. The region has market potential which is not available within Australia, and already trade and cultural links have been formed between the Territory and countries in the region.

There is no reason why the Territory, and Darwin in particular, could not become a major trade and commercial centre with influence extending througout the Western Pacific region. I believe we are seeing the beginning of that scenario now.

A NORTHERN TERRITORY PERSPECTIVE

ALAN MORRIS

This year is the centenary of the birth of the economist, Joseph Schumpeter, recently tagged 'The Non-Marxist Revolutionary' by The Economist magazine. Schumpeter's basic thesis was that capitalism was a doomed economic system. He saw capitalism as a dynamic process of change driven by innovation. But innovation, he pointed out is necessarily destructive of what has gone before.

Innovation, in Schumpeter's view, was encouraged by monopoly: 'the most powerful engine of long run expansion of total output', he called it. Schumpeter saw monopoly as necessary so that the conditions conducive to risk taking could prevail.

But as monopoly came to dominate economic life it would begin to constrain innovation and the process would reach an inevitable grinding halt.

Things haven't turned out quite the way Schumpeter predicted - at least not yet.

But the importance of this thesis becomes particularly apparent when we put it together with Schumpeter's view of taxes and the state. 'If the will of the people demands higher and higher public expenditure' said Schumpeter...'if more and more power stands behind that will...then the tax state will have run its course and society will have to depend on forces other than self interest for its economy. Without doubt the tax state can collapse'.

In Schumpeter's view a relentless growth in public demand for governmental services would start with the demand for the provision of basic social needs, and build ineluctably to ever growing intervention into the production areas of the economy.

I'd say he was pretty close to the mark there.

He anticipated a limit to the state's ability to respond to the demands of people. As the state sector grew, so the area of entrepreneurial activity would be reduced and the state would itself become a dampener on the economy. 'Crowding out' is I think today's term for it.

The state ultimately becomes unable to fulfil the demands on it as claimants in a shrinking pot slug it out in a substitute market place.

Today there is increasing evidence in Australia to support Schumpeter's analysis:

- We do demand higher and higher public expenditure;
- The activity of government is increasingly instrusive in areas of entrepreneurial activity;
- The crowding out of enterprise by government has been acknowledged as a danger by successive federal governments over recent years.

Schumpeter may yet turn out to be right, although it might be a close contest between monopoly and government as to which of these institutions finally brings about the collapse of our economic system.

But what does this have to do with economy and people in the North?

I know what some might say. Their views were well expressed in a recent editorial in the Australian Financial Review which featured stinging criticism of the Northern Territory - not so much of its politics, but rather of its very existence.

The assertion was made that every man, woman and child in the Northern Territory is a pensioner of the Australian nation. But, more interestingly, it went furher than that.

The editorial called for a repudiation of the claims of what it called the 'New Rich' of the Northern Territory to further assistance from the Australian Commonwealth while these 'New Rich' claimed the right to act independently of, and contrary to, Australian Commonwealth Government policy.

Whatever shortcomings the Australian Financial Review might have, it is at least consistent. Its response to the suggestion made by the Chief Minister during the economic summit that tourism could play an important role in promoting a recovery in the Australian economy was to flaunt the editorial headline 'A dingo led recovery?'.

On the face of it, it may sound like a reasonable proposition that Commonwealth investment in the Territory (I think investment a more appropriate term than subsidy) should imply an acceptance of Australian policy by the people and authorities of the Territory. He who pays the piper calls the tune, as they say.

But I would suggest that the Financial Review has things the wrong way round.

The senior Vice-President of a major Swiss bank recently argued that Australia's future lies not in what it produces for the local economy, but what it produces for the international community. In other words, primary production and the exploitation of our natural resources must be the focus of our economic policies rather than manufacturing, traditional or hitech.

That proposition rests on what economists normally call the principle of comparative advantage. It is a view which makes considerable sense.

If we in the north are perceived to be acting in some way independently of commonwealth policy, it just might be because we don't always accept that national policies do in fact best serve the national interest. In some important areas our quaint and unusual northern persepective might be just right for national progress.

For example, some time ago the Northern Territory made a submission to the Industries Assistance Commission in its consideration of approaches to general reductions in protection. That submission provided a number of significant conclusions.

The first was that a reduction in Australian tariff levels would have an expansive effect on the regional economy of the Northern Territory. In other words, a reduction in tariffs would increase Territory output, income and employment.

The second conclusion was the confirmation of results derived from earlier Australia-wide studies that while tariffs have both positive and negative impacts on regional employment prospects, they have virtually no relevance to overall employment demand in Australia. What they do is shuffle resources around the economy and favour inefficient industries at the expense of efficient ones. The principal impact of a tariff is as a tax on exporters.

A lowering of tariffs can produce opportunities for better resource allocation and expanded employment prospects in new industries.

Hence the Northern Territory has argued vigorously for a new approach to the issue of tariffs and protection. If we are right in our contention that such a strategy would create a more efficient and competitive economy, then I fail to see why we shouldn't continue to press our point of view. Swiss Bankers may not always agree with us, but no one could be as consistently wrong-headed as the Australian Financial Review makes us out to be.

The value of mineral production per head of population in the Northern Territory is four and a half times greater than that of New South Wales, six times greater than that of Victoria and nearly three and a half times greater than that for Australia as a whole.

So it's true that advocating this type of national policy approach would also strongly serve territory self-interest. That's a happy coincidence of local and national interest.

Acceptance by Australia that its longer term interests lie in the development of resource and export-orientated activity will consolidate the view that the Northern Territory, far from being a perpetual mendicant, can in fact make a substantial contribution to future national economic activity. And not just economic activity I should hasten to add.

The Territory has sponsored a wide range of social, cultural and traditional contacts with out neighbours in South-East Asia and we have promoted a more balanced immigration policy, with emphasis on family reunion, than national policies would have contemplated.

If such social initiatives are nationally acceptable, why not economic ones?

There is an emerging northern point of view. Invariably it will have a degree of parochialism in it - after all we're just like every one else. But it also has a genuine national perspective which will at times be at odds with that of the people at the bottom of Australia.

This point is important if we are not to lose our way in maintaining the essential basic economic relationship between the production and consumption of wealth - between society's ability to generate income, employment and output and government's wish to distribute all that among its clamouring constituents.

We certainly have to accept that people in the north share at least one trait in common with their southern cousins. They look aggressively and expectabtly to government for the assurance that their aspirations will be met, and, in many respects, to see that they are met.

Governments really cannot bemoan this state of affairs becuase they have done much to encourage it and very little to discourage it. It now seems to be part of our contemporary heritage that we demand of governments that they pamper and cossett us from the cradle to the grave, while incumbent or aspiring governments strive to outdo each other in convincing us that they will look after us best they must accept part of the responsibility for the problem.

The danger is - following schumpeter's analysis - that there is a point at which government will be unable to fulfil the demands placed on it.

And there is only one meaningful conclusion that can, in consequence, be drawn. For the purposes of this conference I will parochialise it - although it has a wider application.

We must establish a sustainable long term perception of how the Northern Territory and Northern Australia generally can contribute to the capacity of government in Australia to meet the ongoing demands placed on it by the Australian community. And then we must bring about that perception by acting on it.

Nor is it a credible thesis that the community's requirements of government, or the government posture in response, will diminish in any appreciable way.

Given that, government will be able to respond to increasing demands only if the economic environment is growing in such a way that the resources available to it are also growing.

This is not an argument about whether government should be significantly involved in economic enterprise. The point applies irrespective of ideology.

Just how close we might be to Schumpeter's point at which government is totally incapable of meeting the demand placed on it because economic activity is failing to produce the resources that would be necessary is unclear.

We are certainly closer to it now than we were in the late 1960s and early 1970s. Whether we are, however, now moving away from that critical point in large part depends on our assessment of whether there is in prospect a significant recovery in the national economy. Again I rule out the other course, that society's demands on government will ease.

Here the outlook is at best ambiguous.

- Federal ministers have acknowledged that high levels of unemployment will persist for some time to come. The most recent federal budget suggested a possible growth in gross domestic product of 3 per cent but gave little indication of any substantial improvement in the labour market.

- Surveys taken over recent weeks indicate that there is now greater confidence throughout the economy that recovery is in prospect than there has been for some time. One consumer survey found the largest recovery in consumer optimism in the last 10 years and strong increases in production of some consumer durables. Another survey conducted through the business community reported growing overall confidence that economic recovery was under way, although this optimism was subdued in the face of concerns about further inflationary pressures and the fragility of the prices and incomes accord which must hold if current strategies are to allow for sustained real growth.

- Even cautious optimism for the future has to be set against the harsh fact that there is a continuing decline in new private fixed capital investment in Australia, and that such investment has now fallen for seven successive quarters. In real terms the fall was 9 per cent for the September quarter.

Over the longer term declining or even stagnant fixed capital investment would be a real cause for concern. Without steady growth in the productive capacity of the economy, the prospect that governments will continue to have available to them the resources they need to meet the demands of their constituents becomes very bleak indeed.

If the Swiss banker is right and if the predictions of national econometric models are borne out (not forgetting the Territory's own small contribution in this area), we will need a framework for economic recovery which is something more than just consensus and reconciliation.

We need to acknowledge not just that we'll do better if we all agree. We have to agree on the substance and direction of national policies. Without that Schumpeter's prediction will be tested sooner rather than later.

Whether or not manufacturing and high technology play a significant part, it is inevitable that primary industry, resource development and the export orientation of the Australian economy must remain pre-eminent.

That being so, the Territory will make a contribution - the economy and the people of the North are significant to the national perspective.

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