

TRANSPORT IN AN EMERGING STATE⁽¹⁾
Some problems to be resolved

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ABSTRACT: The Northern Territory, being a region in the early stages of development, is placed in the position of setting priorities for new and existing transport infrastructure, having regard to finance and competing interest groups within Australia. Diversifying modes of transport is given priority. Through public sector funding of transport infrastructure, the potential exists to expand the Territory's economy with the establishment of improved national and international trading links. Self Government has provided a more assured financial base with which to pursue such objectives.

(1) *The views expressed in this paper are not necessarily those of the Department of Transport and Works.*

AN OUTLINE OF THE PROBLEMS

In planning for transport infrastructure in the Northern Territory, it is important to have some understanding of the constraints and conflicting interests involved. Among these factors could be included physical characteristics such as large distances and a climate ranging from monsoonal in the north to arid in the south. Socio-economic characteristics may also be considered including a small population (although for transport planning in the Territory the spatial dimension is more important than the demographic dimension), a small economic base with limited capital formation, the attitude of Aboriginal groups generally represented by the three Aboriginal land councils in the Territory, and the attitude of employers and unions.

Political considerations are also important in this context. The Territory Government recognises the role of an efficient transport base in future economic development as did previous administrations. Importance is placed on the attitude of the Commonwealth Government in providing financial assistance, and in particular, Commonwealth defence policies as they relate to the Territory. As a corollary to Commonwealth funding arrangements, emphasis is placed on gaining the acknowledgement by State Governments of the Northern Territory's position at the national level, with special reference to the needs of the Territory as a newly developing region in the Commonwealth.

The Chief Minister of the Northern Territory in a speech to the Administrative Staff College at Mount Eliza summarised the difficulties facing the Territory when he said:

"To govern a sparsely populated, barely industrialised area of more than 1.25 million square kilometres, almost by-passed in the development of Australia until very recently, striving for Commonwealth recognition of urgent capital projects and budgetary allocation against fierce competition from the States, ... fighting to retain regional shipping and airline services, laying down the basis of a road system to link up with the rest of the nation, while at the same time meeting the expectations of both the man in the street and the directions of private enterprise, requires consummate skills" (Everingham, 1981).

Relative to the States, the Territory's transport system is limited. One public port for general cargo exists in the Territory at Darwin. There are also two private ports at Gove and Groote Eylandt, but only to service mining at those places. There are international standard runways at Alice Springs, Darwin and Tindal (Katherine) airports, the latter two being primarily for military use, with civil aviation facilities at both Darwin and Alice Springs, the two largest airports, remaining temporary and under-developed. The Commonwealth Government recently announced a program to upgrade Darwin's civil aviation facilities by 1986. A major road corridor runs north-south from Alice Springs to Darwin

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(Stuart Highway), with a highway to the West (Victoria), and one to the East (Barkly Highway). Each of these are classed as national highways yet parts remain unsealed, primarily in adjoining states, with the Victoria Highway in particular subject to flooding. The Australian Bi-centennial Road Development Program should partially redress this problem. No railway infrastructure exists apart from a 250 kilometre line into Alice Springs from South Australia. The Darwin - Alice Springs railway is planned for completion by 1988. (Refer to Plate 1 for the location of Highways and urban centres).

The limited choice of mode brings with it a number of problems, both real and potential. Towns such as Nhulunbuy on the Gove Peninsula, the third largest in the Territory, are dependent exclusively on sea transport for freight services and air transport for passenger services. Darwin receives two-thirds of its non-bulk freight by road (Department of Transport and Works, 1982), and is heavily dependent on air transport for passenger movements to the rest of Australia.

Table 1 shows the movement of non-bulk freight into Darwin and Alice Springs to illustrate this point. In the case of Darwin, two-thirds of the non-bulk freight is transported by road, or railed to Alice Springs then forwarded the remaining 1,500 kilometres by road. Sea movements, including imports from overseas, account for the remaining third. The importance of rail for the Southern region of the Northern Territory is clear, with Alice Springs receiving just under 90 per cent of its non-bulk freight by that mode. Rail's dominant share of the market in the case of Alice Springs is due primarily to the unsealed section of the Stuart Highway in South Australia, but also serves to underscore the potential importance of the railway for areas further north in the Territory.

Table 2 provides some indication of passenger movements, and reflects the long distances faced by people moving both within the Territory and to the States. Thus, compared to a national figure of 83 per cent of passenger trips by private vehicle, the equivalent figure in the Territory is 59 per cent. On the other hand movements by air are double those of the Australian average.

Communities in remote localities present a unique transport problem, and transport planning for these services demonstrates the significance attached to this important social role for transport in the Northern Territory. The transport services to remote communities, while maintaining regular services throughout the year including where possible the wet monsoonal season from November to April, are on a smaller scale than the jet, ship and road train services to larger urban communities. Coastal communities such as Milingimbi and Maningrida are almost totally dependent on barge operations for the transport of their essential goods. Perishables, and other high value, low bulk commodities are flown in regularly by regional air services. All passenger demand is satisfied by air. Inland

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TABLE 1 : Non-Bulk Freight Movements to Darwin and Alice Springs. 1980/81. Percentages.

I N T O D A R W I N

CORRIDOR

MODE	EASTERN %	CENTRAL %	WESTERN %	OVERSEAS %	TOTAL %
Sea	38.9	-	47.5	100.0	33.5
Road	61.1	20.5	52.5	-	40.9
Road/Rail	-	79.5	-	-	25.6
Total	100.0	100.0	100.0	100.0	100.0
TOTAL FREIGHT (000 tonnes)	117.0	90.0	46.0	26.0	279.0

I N T O A L I C E S P R I N G S

CORRIDOR

MODE	EASTERN %	CENTRAL %	WESTERN %	TOTAL %
Road	100.0	10.0	-	11.9
Rail	-	90.0	-	88.1
Total	100.0	100.0	-	100.0
TOTAL FREIGHT (000 tonnes)	1.0	55.0	-	56.0

SOURCE: Department of Transport and Works (1982). Survey of Freight Movements and Costs for Goods entering the Northern Territory. Darwin

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Table 2 : Northern Territory relative to National Passenger Movements by Major Transport Mode.. Inter and Intra-State Movements Percentages..

MAJOR TRANSPORT MODE	NATIONAL (1980/81)	NORTHERN TERRITORY (1982)
Air	10	21
Private Vehicle	83	59
Bus, Coach	3	13
Other	4	7
TOTAL	100	100

Source : Domestic Tourism Monitor, Survey Data, July 1980 - June 1981, and Northern Territory Tourist Commission.

Table 3 : Experimental Index Numbers ¹ (Food Group only) .. Northern Territory Urban Centres.. 1977/81.

	1977	1978	1979	1980	1981
Six State Capital Cities	100	100	100	100	100
Darwin	115	115	111	114	116
Alice Springs	110	113	112	111	117
Tennant Creek	119	119	113	115	121
Katherine	119	119	115	118	122
Nhulunbuy	125	125	119	125	125

Note: 1. The index is indicative only, measured at 15 March each year.

Source: Australian Bureau of Statistics, Brisbane.. Unpublished Information

the situation is similar with road replacing barge operations to communities such as Docker River in Central Australia. Energy costs are a major problem for these services.

The lack of an alternative mode of transport, to be redressed by the end of the decade, limits competition and results in high transport costs relative to the rest of Australia, with a consequent high cost of living well above that in South Eastern Australia. Table 3 provides an indication of the cost of living in the Northern Territory relative to average food prices in the six State Capital cities. As may be seen, for every \$1.00 spent on food in the capital cities, around \$1.15 is required in Darwin, and for Nhulunbuy outside the main transport corridor, \$1.25 is required. While these statistics are estimations only they nevertheless reflect the high transport cost component for essential goods in the Territory.

The lack of an alternative mode for land-based transport also exposes the Territory to possible disruption in its freight services. It is at the end of the distribution chain and therefore more vulnerable to, for example, a sudden shortfall in liquid fuel supplies. The Northern Territory is dependent on petroleum fuels for 99 per cent of its primary fuel demand, compared with 54 per cent in Tasmania and 37 per cent in Victoria. (Department of Mines and Energy, 1982).

THE APPROACH TO IMPLEMENTING GOVERNMENT POLICY

While the Government of the Northern Territory has assumed many state-type responsibilities, a number of powers remain with the Commonwealth that directly or indirectly influence transport planning in the Territory. Uranium mining and Aboriginal land rights are two examples. The Commonwealth's Aboriginal Land Rights (Northern Territory) Act 1976 empowers the Northern Territory Legislative Assembly to make reciprocal laws, notably the Aboriginal Land Act 1978. Transport planning must operate within this legislation, including planning for road and railway alignments, airport siting and the operation of coastal vessels such as barge operations. In the latter case, section 12(1) of the Northern Territory's Aboriginal Land Act 1978 allows for the closure of seas adjoining and within 2 kilometres of Aboriginal Land. (Toohey, 1981). In addition there is the Aboriginal Sacred Sites Act 1978 enacted by the Northern Territory Legislative Assembly. Route planning and surveying for the Darwin - Alice Springs railway has, in this context, been unique in Australian transport planning, paying particular attention to the views of Aboriginal Land councils and the location of sacred sites.

Within the parameters established by the Commonwealth Government, the Northern Territory is undertaking transport planning and development with the emphasis on minimising regulations as much as possible, and encouraging self-regulation within the transport industry, thereby limiting the size of the public sector required to oversee the operations of the industry. This point is further

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expanded below where the operations of each transport mode are addressed.

Aviation

The airline route structure which radiates from Darwin to Gove and Groote Eylandt in the East, and to Alice Springs and Ayers Rock via Katherine and Tennant Creek in the south, is supplemented by a large number of regional airline services providing essential transport for smaller communities. In all, the Department must liaise with seven different companies providing regular public transport services across approximately 190 different sectors. Apart from TAA and Ansett, three companies are based in Darwin, one in Katherine and one in Nhulunbuy. These companies have exclusive rights to fly specified routes, because a regular transport service is essential and the small communities can only support one operator profitably. The 1980 population of selected settlements serviced by regular public transport include 571 people at Hooker Creek (Lajamanu), five hundred kilometres South West of Katherine, 310 at Raminging in Arnhem Land and 250 people at Snake Bay (Milikapiti) on Melville Island. (Implementation & Management Group, 1980). In addition there are a large number of charter companies, mainly operating outside the regular public transport network.

The intention remains to encourage the development of a code of ethics among the operators in order to minimise the amount of Government involvement. As part of this the Department has assisted in the establishment of the Northern Territory Aviation Association. The Association provides a focal point for liaison between Government and the industry, and ultimately it is hoped that through the Association the industry will be capable of practising a large degree of self-regulation.

A small aviation section within the Department is responsible for Territory aviation policy and carries out commercial licencing, regulation under the Northern Territory Aviation Act, the production of monthly statistics of passenger, freight and revenue data and load factors by sector, and the production of a bi-monthly newsletter for the industry.

Land

Land transport planning in the Territory has adopted innovative approaches in an attempt to overcome some of the problems facing the transport industry.

A distributed computer network links Darwin with four other centres throughout the Territory, providing the necessary information for the transaction of business related to motor vehicle registrations, drivers licences, and load ratings for heavy vehicles. The terminals at any locality provide access to a 24 hour a day, on-line data base. The information held by Motor Vehicle Registry is also accessible at any time to the Police Force for law enforcement, and to the Territory Insurance Office. The use of common data banks is encouraged to avoid duplication of information.

Office functions and enforcement in the field of such measures as load and dimension limits are integrated into one section of the Department, unlike the dispersed administrative arrangements in a number of States, thus facilitating more efficient administration of land transport regulations and related aspects. The Department maintains communication with the industry through the Northern Territory Road Transport Association, working with the Association and gaining their agreement before introducing changes to the regulations governing the industry.

The Northern Territory is a leader in road train operations. Triple-bottom vehicles consisting of a prime mover and three trailers operate regularly on Territory roads. These vehicles have gross loads of up to 115 tonnes and up to 50 metres in length. Road train operations contribute to the containment of labour and fuel costs, and lessen pavement damage due to overloaded vehicles given that allowable operating capacities are so large. Despite the large loads and length, road trains have an excellent safety record and in fact reduce the number of times smaller vehicles must overtake large and slow vehicles.

The Territory does not use the permit system of route control common in the rest of Australia. Road trains are classified 'as of right' vehicles and are permitted to operate anywhere within the Territory apart from certain restricted areas, for example, suburban Darwin. A road train can enter the Territory at any point and deliver its load at the Port of Darwin if required. On the other hand, a number of States issue permits for specified routes only, with no access permitted outside the point to point route. (See for example, Main Roads Department, Queensland, 1982). The result is that the Northern Territory must police a limited number of restricted areas only to enforce the law, unlike the states which must police the whole state.

In summary, the Territory's approach to road transport is one of utilising modern technology and minimising the regulations for road freight operations, while maintaining safety standards and concentrating its efforts on effective field controls. Similarly, there is no commercial licensing of bus operations. This approach encourages efficiency within the industry, and has the added advantage of limiting the size of that part of the Government sector required to oversee the operations of the industry.

The other side of land transport in the Territory deals with planning for the Darwin - Alice Springs railway. Some reference has already been made to this above. The primary responsibility for planning and construction of the railway rests with Commonwealth authorities, including Australian National, but the Department also has a part to play.

Satellite photography has been used to assist in delineating the corridor and for route surveying. No survey work is undertaken until sacred sites clearance has been given. The railway will be a major innovation in transport for the Territory, increasing competition between modes and providing northern Australia with a high bulk, long haul

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transport system linked to Australia's national standard gauge rail network. It is arguably the single most important transport initiative in the Territory's history.

Marine

Upgrading the Port of Darwin into a modern port is considered an integral part of developing a landbridge between South East Asia and Southern Australia. A roll-on, roll-off facility, container crane, new wharves and container park extensions will precede the completion of the Darwin - Alice Springs railway.

With the introduction of the Northern Territory Marine Act in 1982, the Government was able to incorporate into the legislation in full the Uniform Shipping Laws Code (Commonwealth of Australia, 1981). This is an example of the advantages gained by a newly created administration, with no previous laws necessary to amend or repeal in order to adopt the code. There are no commercial licencing standards within the Act. Rather the major concerns are with safety and manning standards only. For barge operations along the coast, the provision of navigational aids and landing facilities are also part of the Departments function. The Government, through the Northern Territory Development Corporation, has also provided assistance in the way of Government guarantees for the purchase of a vessel to operate a locally based, overseas barge service linking Singapore with Darwin.

The Port of Darwin has had to function with a large tidal variation inhibiting its efficient operations. This has meant building out to permanent deep water. The Ro-Ro facility has been designed specifically to operate under these conditions, with the facility including a 77 metre long linkspan to cope with a tidal variation of 7.5 metres. (Fisher, 1982). The Ro-Ro is only the second of its type in Australia and one of the largest in the world.

TODAY AND TOMORROW

The Territory's transport system is focussed on the central transport corridor, generally defined by the Stuart Highway, joining Alice Springs in the south with Darwin in the North.

Spatially, the central corridor is well placed to service the Northern Territory. In this context resource development is of primary importance. While resource development does not in itself attract a significant number of people, it does provide the incentive to develop transport, resulting in long term benefits beyond the life of any particular mine. The Arnhem Highway is a good illustration of this, linking uranium mining in the Alligator Rivers region to the Stuart Highway. The Highway also services Kakadu National Park, a major tourist attraction in the Top End of the Territory. The Carpentaria Highway joins the large but as yet undeveloped silver, lead and zinc ore body at McArthur River to the Stuart Highway. An oil and gas pipeline from Mereenie and a gas pipeline from Palm Valley

are also planned to meet the central transport corridor at Alice Springs. Further oil and/or gas discoveries in the Amadeus Basin (South West) and the Joseph Bonaparte Gulf (North West) may be serviced from the central corridor if the reserves prove large enough for exploitation.

Another example of economic development preceding transport development is the beef roads scheme which commenced in the Northern Territory in 1961. Prior to the scheme, many roads were rough and unsealed resulting in high cattle mortalities due to trampling in transit, and bruising. The Scheme led to the upgrading and sealing of uncompleted parts of the Stuart, Barkly and Victoria Highways. It also resulted in sealing highways joining the major road network, including the Tablelands, Carpentaria and Roper Highways, and upgrading the Buchanan Highway (Commonwealth of Australia, 1970). The beef roads scheme did much to open up the Territory, with the requirements of the pastoral industry acting as a catalyst in the development of this transport infrastructure.

Political changes to the administration of the Northern Territory have also 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.

Unlike in the past when the Territory was governed by the Governments of New South Wales (1825-63), South Australia (1863-1911), and the Federal Government (1911-), there has been self-government since mid-1978, with many of the state-type responsibilities resting with an elected government based in the Northern Territory. The fact that the government is no longer based outside the area of responsibility means that the Territory is not subject to the 'absentee landlord' type of decision making as it was in the past.

The devolution of political power may be viewed as one approach to regional development, unlike for example the growth centre concept which theoretically, if not politically, was conceived as a means of developing the stagnating periphery (Darwent, 1975).

In this context, Friedmann made an interesting observation:

"... it is surely suprising that regional planning almost succeeded in making a fetish of growth centres to the neglect of other dimensions of regional policy. Area or territorially specific policies receded into the background of academic discussion. As a result, insufficient attention was paid to questions of natural resources, political implementation, administrative organisation, and above all, to rural development. Growth centres had become the universal solution to every regional problem. But no one was really sure what this implied." (Friedmann and Weaver, 1979, p 129)

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With the granting of self-government in 1978, area specific policies and their political implementation have been addressed, as has the administrative organisation necessary to carry out the changes in policy. The policies have not been centred on a single urban centre, but rather across the Territory and include the further upgrading of highways, the construction of the Darwin - Alice Springs railway, the development of the Port of Darwin, building of barge ramps for coastal communities and the modernisation of airport facilities at many centres.

The Territory has with the assistance of the Commonwealth Government, been able to accelerate growth through public infrastructure investments. This has been achieved through the Memorandum of Understanding on financial arrangements (Commonwealth of Australia, 1978). Darwin has expanded as an administrative centre, and through the policies of the Territory Government dealing with regional administrative centres - Katherine, Tennant Creek, Alice Springs and Nhulunbuy - other urban centres have also benefited. Thus, the administrative and political changes that have occurred in recent times have probably done more for the development of the Territory than if the Commonwealth Government had adopted a purely economic strategy for the development of Northern Australia.

The Territory is maintaining its population growth rate. Population growth is estimated at 3.7 per cent per annum, about double the expected Australian growth rate, over the period 1981/90, resulting in a Territory population of just over 170,000 people by 1990 compared to 123,000 at the 1981 census. Darwin's growth rate is expected to be just under 5 per cent per annum over the same period with a population of around 86,000 people by 1990 (Population Projections Group, Northern Territory Government).

With a small population dispersed over a large area, the Government is placed in a similar position to State Governments in the 19th Century. The Territory Government has a greater freedom of choice to utilise transport infrastructure as a mechanism for directing long term growth and development.

In the case of New South Wales, the Government through decisions over time developed a transport network that was radially focused on Sydney, serving to reinforce and polarise growth on that city, and creating the classic core and periphery regions as an approach to development (Friedmann and Weaver, 1979). The result has been the development of a metropolitan region dominating the rest of the State, and this practice has been followed in a number of other states. The dominant metropolitan centre and under-developed rural or peripheral region as a general concept in development may be described as the established or traditional approach to regional development in Australia. Hirschman (1975) argues that this type of development is inevitable during the early phases of economic growth. The distribution of Australia's population, concentrated as it is in a handful of major

cities, serves to underscore the point of polarised development in Australia generally.

The Territory Government may choose to follow a similar line in the development of the Northern Territory, and utilise transport infrastructure to reinforce and concentrate long term growth on Darwin. Alternatively, it may choose to develop a growth corridor, based on further development of the central transport corridor running the length of the Territory from Alice Springs to Darwin. Other alternatives are also available. That is, there still remains a relative lack of precedent in decision making for transport development. Of course, the factors of production and consumption from which transport is derived play the key role. However the interaction is more complex than that implied by the derived demand concept. As Isard argued (1956), transport is as fundamental to production as any other factor such as capital or labour, with transport a major element in the cost of production. To illustrate this point consider one future possibility. It may be that when the McArthur River deposit is developed, rather than choose to construct a transport system to the Gulf of Carpentaria and build a deep water port at the Sir Edward Pellow Group of islands, a spur line could be constructed linking the deposit with the central rail corridor and the already developed port at Darwin.

The Government has not made an explicit choice on which alternative to follow. Government policy in this area, like any policy of any government, is made up of different elements that are not static. The policies change and develop as the region develops. Nevertheless, the foundations of the Northern Territory's transport network have been set and from this a view of the transport system in future can be gleaned. The development of a central transport spine remains clear, strengthening the concept of a growth corridor in the Northern Territory in the future. Additional weight is added to the concept through the Government's policy related to administration areas within the Territory. The regional administrative centres mentioned previously have control of local resources and responsibility for the administration of Government policies related to the local area wherever practicable.

A number of initiatives support the central corridor. These include the upgrading of the Stuart Highway from Alice Springs to Darwin, and the sealing of the southern section in South Australia. Upgrading and sealing sections of the Victoria and Barkly Highways, the western and eastern links respectively to the rest of Australia, is also significant with both highways joining the central spine, the Stuart Highway. In fact, Katherine receives significant underlying growth from its location at the point where the Victoria Highway joins the Stuart Highway. Major road transport companies are based in Katherine, cattle movements to Darwin and Wyndham occur through this centre, and road trains and other vehicles utilise the town for refuelling and servicing.

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Construction of the Darwin - Alice Springs railway, linked to a modern port at Darwin is an important part of the future development of the central corridor. The establishment of modern airport facilities at Darwin and Alice Springs play a significant role in this development, particularly given the importance of the tourist industry to the Northern Territory, and the now small but potentially significant business links that are developing between the Territory and South East Asia. As with surface-based transport, Darwin's location midway between South East Asian and Southern Australian airports provides the potential for an expansion in Darwin's role in servicing international aviation. Modification of the Commonwealth's current policies would be required for this potential to be realised fully.

Tourist developments are also serviced from the central transport corridor including the Yulara Tourist Village being developed at Ayers Rock and linked to the Stuart Highway via the Petermann Road. Yulara is serviced by Connellan Airport, built by the Territory Government near Ayers Rock in 1982.

Resource development remains important. Table 4 provides details of selected major projects in the transport field and related areas that will contribute to the Territory's economic expansion. Many transport projects have already been mentioned. More than \$1,000 million is committed for public sector infrastructure works over the next five years (see also Plate 1).

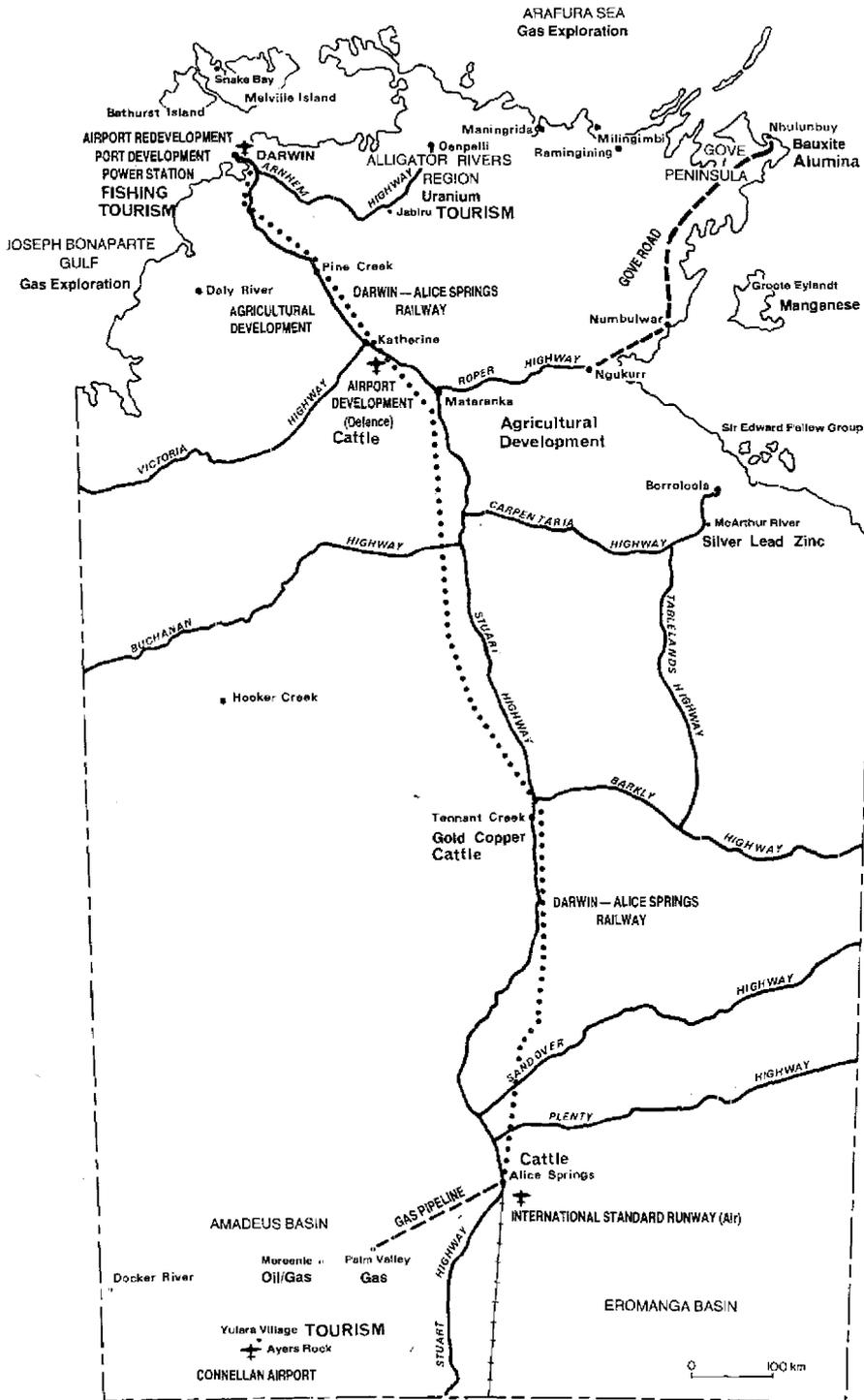
In short, the central transport corridor is already demonstrating its effectiveness in providing efficient access to all points in the Territory and developing a central growth corridor.

CONCLUSION

In discussing the future prospects for transport in the Northern Territory, it is helpful to have some understanding of how the Territory arrived at its current position. Political and administrative changes have already been addressed briefly. Historically, there has been a body of opinion in Australia that the Northern Territory's purpose, its *raison d'etre*, has been for the establishment of a presence in Northern Australia, with the defence and international relations implications this entails. It may be now time to turn this attitude around to our advantage, while continuing to recognise the importance of the above viewpoint.

It is equally important for the Northern Territory to expand its economic base to lessen the reliance in the long term on an economy with a dominant public sector. Given the small population of the Territory, there is limited scope for wealth to be generated internally. Therefore, if living standards are to be maintained and improved, while at the

EXISTING AND PLANNED TRANSPORT AND RESOURCE DEVELOPMENTS



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Table 4 : Selected Major Projects. Northern Territory.

MAJOR TRANSPORT PROJECTS

PROJECT/LOCATION	COST (\$M)	COMPLETION	COMMENT
Roll-on Roll-off facility, Container Crane and Wharf Extension, Darwin	40+	1987	Development of the Port of Darwin. Trucks up to 200 tonnes will be able to use the ro-ro facility. Lift capacity of crane 70 tonnes. Port is being developed to handle livestock, bulk cargoes, containers, gas and liquid fuels. (Committed).
Rail link, - Alice Springs	545	1988	The railway will link northern Australia and the Port of Darwin with the national, standard gauge rail network. This will provide an integrated high bulk transport corridor for Territory, national and international goods movement (committed).
Australian Bicentennial Road Development Program. Stuart, Barkly and Victoria Highways	65	1988	The program will provide funds to upgrade national highways in the NT and seal and upgrade links in other States to the NT network. Other roads are also included in the program (committed).
Gove Road, Gulf of Carpentaria	63		The road will link Nhulunbuy on the Gove Peninsula with the Stuart Highway, south of Katherine (planned).
New Airport terminal, and related works, Darwin	86	1986	Works will include new terminal building, support buildings, new taxiways and aircraft apron and access road (committed).
OTHER PROJECTS			
Yulara Tourist Village, Ayers Rock	100	1984	Private development including hotels/motels/taverns, camping facilities, hostels shopping facilities and other urban services (committed)

PROJECT/LOCATION	COST \$M	COMPLETION	COMMENT
Coal fired Power Station, Channel Island, Darwin	450	1993	300 MW. Darwin currently relies on fuel oil for power generation, (committed).
Bulk Port, Channel Island	10	after 1986	Facilities for coal unloading for the power station, also bulk fuel supplies (planned).
Gas Pipeline, Palm Valley - Alice Springs	14	1984	Initially for power generation in Alice Springs. Reserves 1.4 billion cubic metres (known) 273 billion cubic metres (potential), (committed)
Oil/gas exploration, Joseph Bonaparte Gulf, Arafura Sea and Amadeus Basin			Appraisal wells (continuing)
Silver, lead and zinc deposit, McArthur River	1000		Development of Mine and treatment facilities. Estimated ore reserves 227 m tonnes, (planned)
Uranium, Jabiluka	600	1986	Development of Mine and treatment facilities. Estimated reserves 207,000 tonnes, (committed).
Uranium, Koongarra	85		Development of Mine and Treatment facilities. Estimated reserves 13,000 tonnes, (planned).
Oil and Gas, Mereenie	50		Known recoverable reserves, 64 million barrels of oil. Oil and gas exploration continuing. Pipeline planned.
Airfield Works Darwin - Tindal (Katherine) RAAF base		1984-87	Airfield works and support facilities for a fighter squadron (planned).

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same time lessening the dependence of the economy on the public sector, the economic base of the Territory will have to be expanded. This may be partially achieved by concentrating on the development of the Territory's natural resources, so that inter-regional and international exports expand. Both mining and agriculture can contribute to this process.

Transport can play a key role in assisting this economic expansion. In terms of the logistics of transport, the Territory commands a strategic position between South East Asia and the rest of Australia. The development of a modern port at Darwin linked to the rest of Australia by the Darwin - Alice Springs railway will provide the necessary infrastructure for a high bulk transport system to be established in the Territory. This transport system will allow for steaming time to be cut by up to two weeks on a return voyage between South East Asia and southern Australia, and provide the means whereby the Territory can develop a trading based economy to complement its existing economic base.

By the 1990's the transport infrastructure of the Northern Territory will be diversified to allow for a more complete mode choice as is the case for much of Australia. The national highway system to and within the Territory will be up to a satisfactory standard, and it is hoped that major airport facilities will be up to a standard similar to other parts of Australia with comparable traffic movements.

Western Australia demonstrated the importance of transport infrastructure in making its decision to enter the Commonwealth, based in part on the completion of the trans-continental railway. So too the Northern Territory will be in a position to move one step closer to a more complete Federation in Australia with the establishment of important transport facilities.

Will the railway be cheaper overall than the highly efficient road trains - or is it just an (inefficient) means of the Government subsidising the Territory?

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