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Foreword

The *Northern Australia Statistical Compendium 2009* was prepared by BITRE with the assistance of the Office of Northern Australia, with the aim of compiling a base of factual information that would contribute to improved understanding of the economic and social developments in this region. The compendium discusses essential characteristics of Northern Australia and offers comparisons with the rest of Australia, wherever possible. It provides information on population, the economy, employment, social conditions, education, transport, infrastructure, climate, land use and major industries for Northern Australia as a whole and for the regions within it.

The compendium is intended to support fact-based policy dialogue and formulation of policies conducive to economic development and social wellbeing. It is published in two formats: electronically and in print. The electronic version is available on the Internet and on compact disc. It includes detailed background data in addition to the overview paper. This allows for more detailed information to be provided on each of the regions, particularly at the statistical local area (SLA) and urban centre localities (UCL) level.

This project was led by Adam Malarz and Geoff Frost, with Jan Anderson-Muir and Olivia Waugh. Gary Dolman provided executive supervision and support.

Phil Potterton
Executive Director
May 2009

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At a glance

- Northern Australians represented 4.7 per cent of the total Australian population in 2006. The majority of people within Northern Australia live in the northern regions of Queensland.
- The population of many Northern Australian regions is younger than that of Australia as a whole.
- Indigenous people comprise a relatively large proportion of the Northern Australian population (14.3 per cent), as compared with the whole of Australia (2.3 per cent).
- Northern Australia's recent economic performance to 2005–06 can be broken down into three distinct phases: a growth phase from 1990–91 until 1995–96; a phase of stagnation and decline from 1995–96 until 2000–01; and then a phase of resource-driven growth from 2000–01.
- Employment grew faster in Northern Australia between the 2001 and 2006 census (11.4 per cent) than it did across Australia (9.7 per cent).
- In Northern Australia in 2006, 5.8 per cent of employees worked in mining, and 10.1 per cent of employees worked in government administration and defence. By comparison, across Australia as a whole, 1.2 per cent of employees worked in mining, and 5.5 per cent of employees worked in government administration and defence.
- In 2006, relatively few Northern Australians were employed in the manufacturing sector (7.0 per cent), and in finance, insurance, property and business services (9.1 per cent). By comparison, across Australia as a whole, the manufacturing sector employed 11.1 per cent of workers, and finance, insurance, property and business services employed 14.7 per cent of workers.
- Exports via Northern Australian ports grew faster than the total tonnage of Australia's exports and represented 56.3 per cent of total tonnage and 21 per cent of value of Australian exports via sea ports in 2007–08.
- In education, the proportion of people to have completed Year 12 or equivalent in Northern Australia (27.3 per cent) was well below the Australian average (33.9 per cent).
- The proportion of health workers is lower across Northern Australia (2775 per 100 000) than Australia as a whole (3102 per 100 000), especially in parts of northern Western Australia and northern Queensland.
- The availability of the Internet in Northern Australia (62.3 per cent of households had access) was lower than in the rest of Australia (64.6 per cent of households had access). Fewer Northern Australian households had broadband access (34.4 per cent) than across Australia generally (39.2 per cent). Meanwhile, more households had dial-up Internet access in Northern Australia (23.3 per cent) than across Australia (21.5 per cent).

- Regular passenger transport, charter and other flying services are used relatively more frequently in Northern Australia than in the rest of Australia due to large distances and specific employment practices in that region, such as 'fly-in, fly-out'.
- Electricity supply in Northern Australia is based largely on local gas-fired generators.
- Water resources and storage in Northern Australia are strongly concentrated around the coastline with major water reserves in the Kimberley Region and north-east Queensland.
- Fifty per cent of Australia's rain falls in Northern Australia.
- On average, 13 cyclones occur in Australia each year, although many do not make landfall. The majority of cyclone activity across Australia occurred within regions in Northern Australia, particularly around north-east Queensland and north-west Western Australia.
- Tourism is an important industry in Northern Australia. Although the region had 4.7 per cent of Australia's resident population in 2005, it also had a 16.9 per cent share of international tourist overnight stays and a 7.5 per cent share of domestic tourist overnight stays that year. Most tourist visits occurred in the northern regions of Queensland, followed by the Northern Territory.

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Executive summary



Executive summary

Background

This statistical compendium is a collection of data relating to that region north of the Tropic of Capricorn, named 'Northern Australia' by the Australian Government at the inception of its Office of Northern Australia. In addition to tabulated and graphed statistical data, the compendium discusses essential characteristics of the region and provides comparisons with the rest of Australia, wherever possible. The compendium provides information on population, economy and workforce, social conditions, education, transport, infrastructure, climate, land use and major industries in the region.

Population

1. Population, population growth rates and density

- Northern Australians represented 4.7 per cent of the total Australian population in 2006. The majority of people within Northern Australia (70.5 per cent) live in the northern regions of Queensland.
- Northern Australia exhibits a pattern of small, but relatively highly concentrated population areas, surrounded by large, sparsely populated areas. Within Northern Australia, Queensland is generally more densely populated than the northern regions of the Northern Territory and Western Australia.

2. Ethnicity, age and sex

- A relatively large proportion of the Northern Australian population is Indigenous (14.3 per cent) compared to that of the whole of Australia (2.3 per cent). In Northern Australia, 12.4 per cent of people were born overseas, compared with 22.2 per cent of Australians generally.
- There are more young people (22.9 per cent aged 0–14) and fewer old people (3.4 per cent aged 75 and over) within Northern Australia, compared with the rest of Australia (19.6 per cent and 6.2 per cent respectively), and working age males often outnumber working age females.

Economic activity

1. Economic growth

- Northern Australia's recent economic performance can be broken down into three distinctive phases: a growth phase from 1990–91 until 1995–96; a phase of stagnation and decline from 1995–96 until 2000–01; and then a final phase of resource-driven growth from 2000–01 until 2005–06.
- The economy of Northern Australia is strongly linked to the mining and natural resources markets.

2. Employment by industry

- Relative to Australia, the industries of mining, government administration and defence were larger employers in Northern Australia. Less people were employed by the industries of manufacturing, finance, insurance, property and business services in Northern Australia in comparison with the rest of Australia.
- In Northern Australia in 2006, 5.8 per cent of employees worked in mining, and 10.1 per cent of employees worked in government administration and defence. By comparison, across Australia as a whole, 1.2 per cent of employees worked in mining, and 5.5 per cent of employees worked in government administration and defence.
- An increase in employment was observed across almost all industries in Northern Australia between 2001 and 2006, the largest increase being in construction, primarily due to the substantial expansion of minerals projects in northern Queensland, the Pilbara Region (Western Australia) and LNG projects in Darwin-East Arnhem (Northern Territory).

3. Income

- The most frequently observed median individual income for Northern Australia (\$200–250 per week) indicates that many Statistical Local Areas (SLA) have a high number of people earning a low income.
- The income statistics also reveal a greater number of males earning a higher weekly income and a greater number of females earning an income in the lower income brackets.
- Broadly speaking, much of Northern Australia had a higher dependence on wage and salary income (84.5 per cent) than Australia as a whole (79.2 per cent) and a comparatively lower dependence on superannuation, annuities and investments (1.7 per cent in Northern Australia compared with 3.2 per cent in Australia).

Workforce

1. Employment, unemployment, labour force size and participation rates

- In 2006, labour force participation rates across Northern Australia (63.6 per cent) were all higher than the Australia labour force participation rate (60.4 per cent).
- Employment grew more in Northern Australia (11.4 per cent) between the censuses of 2001 and 2006 than it did across Australia. 'Fly-in, fly-out' and 'drive-in, drive-out' staff rotations were significant features of employment growth in many Northern Australian mining regions.

2. Qualification and school completion

- In terms of education, the proportion of people who had completed Year 12 or equivalent in Northern Australia in 2006 (27.3 per cent) was well below the Australian figures (33.9 per cent).
- Higher proportions of Certificate level qualifications were seen across Northern Australia (37.5 per cent), compared to Australia (31.8 per cent), in 2006. Lower numbers of Postgraduate and Bachelor degree level qualifications, as well as lower levels of Graduate Diploma and Graduate Certificates, were observed in that year compared to the rest of Australia.

Day-to-day living

1. Income support and wealth

- Between 1995–96 and 2000–01 dependence on government benefits increased in Northern Australia, more than it did across Australia as a whole.
- Household wealth was lower than that of Australian households generally in 2003–04. The average debt-to-asset ratio was also higher across Northern Australia (17 per cent) than across Australia generally (13 per cent).

2. Cost of living

- High grocery prices, nearly twice capital city prices, are characteristic of very remote and isolated places with large proportions of Indigenous people in the population.

3. *Schools, universities and TAFE institutions*

- School sizes and enrolments were often smaller within Northern Australia. In very remote regions, students wishing to study to Year 12 level often had to study outside their own local area. Of Australia's 9562 schools, 681 (7.1 per cent) were located in Northern Australia. Six hundred and fifteen Northern Australian schools offered up to primary school education, 137 offered up to junior secondary education (this figure includes some mixed primary/secondary schools), and 196 offered up to Year 12 education (this figure includes some mixed primary/secondary schools).
- There are four tertiary institutions that have a main campus located within Northern Australia. In 2006, there were lower proportions of people at university in Northern Australia (3.0 per cent) compared to the rest of Australia (4.7 per cent), with particularly low proportions seen in northern Western Australia (1.4 per cent).
- Northern Australian student enrolments at TAFE institutions (84 per 1000 people) were higher than across Australia as a whole (65 per 1000).

4. *Health*

- Ninety-two of Australia's 795 public hospitals (approximately 11.6 per cent) were located in Northern Australia. Further, 17 of Australia's 549 private hospitals (approximately 3.1 per cent) were located across the region. Most of Northern Australia's hospitals were located in the more populous areas of northern Queensland.
- The proportion of health workers is lower across Northern Australia (2775 per 100 000 people) than Australia as a whole (3102 per 100 000 people) especially in parts of northern Western Australia and Queensland. As the remoteness of SLAs increased, the proportion of health workers decreased.
- The breakdown of nine key health professions indicated that there are smaller proportions of nurses, medical workers, dentists, pharmacists, optometrists, physiotherapists, chiropractors and psychologists within Northern Australia than across Australia generally.

Transport

1. *Trade via maritime ports*

- In 2007–08, exports via northern Australian ports grew faster than the total tonnage of Australia's exports and represented 56.3 per cent of the total tonnage of Australian exports via sea ports.
- Northern Australia's value of exports was \$74.1 billion or 21.1 per cent of the total Australian exports via sea ports in 2007–08. The Pilbara Region in Western Australia was the largest source of tonnage exported in Northern Australia. It was also the largest source of export value, with iron ore exports worth nearly \$30 billion in 2007–08.

- Import tonnages via Northern Australian ports are only a small fraction of those exported via these ports, with Darwin-East Arnhem in the Northern Territory and the Northern Region of Queensland being the largest importing regions in Northern Australia

2. Aviation, railways and roads

- Regular passenger transport, charter and other aviation services are used relatively more frequently in Northern Australia than in the rest of Australia due to large distances and specific employment practices, such as 'fly-in, fly-out' staff rotation.
- Railways in the northern regions of Western Australia are not dense or interconnected with the rest of the continent but carry very large tonnages of iron ore, coal and other minerals for exports via ports; Northern Territory and Queensland's Northern Region standard gauge railways are interconnected with the southern states.
- Northern Australia is joined to the rest of Australia via mostly all-season roads which are essential for passenger and goods transport.

Infrastructure

1. Electricity and gas

- Electricity supply in Northern Australia is based largely on local generators.
- Except for Queensland's eastern regions, most generators in Northern Australia are of relatively small capacity and use locally available gas and liquid fuels.
- Gas production and transmission is a large and growing industry in Northern Australia providing vital sources of heat and electricity for commodity production and processing in the region, as well as for use by the local population.

2. Water

- Water resources and storage in Northern Australia are strongly concentrated around the coastline with major water reserves in the Kimberley Region and north eastern regions of Queensland.
- The major water user is agriculture, as there are no population agglomerations over 200 000 people in Northern Australia.
- Artesian water is an important source for irrigation and other agricultural use.

3. Telecommunications

- The availability of the Internet in Northern Australia (62.3 per cent of households had access) was lower than in the rest of Australia (64.6 per cent of households had access). Fewer Northern Australian households had broadband access (34.4 per cent) than across Australia generally (39.2 per cent). Meanwhile, more households had dial-up Internet access in Northern Australia (23.3 per cent) than across Australia (21.5 per cent).

Natural resources

1. Land use

- The highest share of land use in Northern Australia was grazing natural vegetation (57.4 per cent) followed by conservation and natural environments (40.2 per cent).
- The largest part of area under grazing natural vegetation was in Queensland's North West Region (94.88 per cent). Dry cropping was proportionately highest in the Mackay Region (1.45 per cent).
- Mines are significant land users in the Pilbara, Darwin-East Arnhem, Mackay, Northern Queensland, Far North Queensland and Gladstone regions.

2. Rainfall and temperature

- Many of the regions within Northern Australia experience the majority of their rainfall during the wet season, from approximately November through April. Warmer temperatures are also experienced during this period, with some regions experiencing the highest average maximum temperatures in Australia.
- Fifty per cent of Australia's rain falls within Northern Australia.
- There is little rain during the dry season, from about May through October. Cooler temperatures are also experienced during this period.

3. Predicted rainfall and temperature

- According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), based on modelling associated with current emission trends, by the year 2030 annual rainfall within Northern Australia is predicted to increase in parts of the Kimberley and Mackay regions, and in the Darwin-East Arnhem and Far North regions. It is predicted that most other parts of Northern Australia will experience a decrease in annual rainfall.
- The CSIRO predicts that there will be an increase in the average winter and summer temperatures across Northern Australia by 2030, particularly in inland areas.

4. Cyclonic activity

- On average there are about thirteen cyclones which form in the Australia region each cyclone season, although many do not make landfall. The majority of cyclone activity across Australia occurs within regions in Northern Australia, particularly in the regions around north-east Queensland and north-west Western Australia.

5. Minerals and energy resources

- Northern Australia's minerals and energy resources are abundant and diverse and include metal ores, gas, oil, uranium, coal, gold and diamonds.
- The resource base has been reassessed and new deposits are being discovered and documented continuously.

6. Soil characteristics

- Northern regions of Western Australia and Northern Territory types of soil support pastoral uses and some irrigated cropping while Queensland's northern regions are suitable for sugar cane cropping and other uses facilitated by higher water availability in most regions.

7. Groundwater

- Groundwater capacity varies considerably over the Northern Australian region. Across much of the Northern Territory's interior and the northern Kimberley in Western Australia, groundwater basins have a sustainable yield of less than 500 gegalitres per year. Meanwhile, much of the Arnhem and Gulf coastal area of the Northern Territory have underground reserves which can produce a sustainable yield of between 2000 and 2500 gegalitres per year.
- The Great Artesian Basin stretches across much of Queensland (particularly the North West and Far North regions within Northern Australia), with a sustainable yield of between 200 000 and 500 000 megalitres of water per year.

8. Fisheries

- Fisheries in Northern Australia are subject to the same management rules as the rest of Australia. The Australian Fisheries Management Authority manages more than twenty fisheries, nine of which include waters off Northern Australia. Of these nine, four fisheries are exclusively associated with Northern Australia.

Industries

1. Mining and minerals processing

- Australia's two largest scale mining operations are located in Northern Australia: mining of iron ore in the Pilbara and mining of black coal in eastern Queensland's MacKay Region.
- The value adding operations are small compared with the large scale of mining minerals, which are exported predominantly unprocessed.

2. Businesses

- Between 2004 and 2006, the total number of businesses grew more rapidly across much of northern Australia (4.8 per cent increase), more rapidly than it did in Australia as a whole (2.8 per cent increase).
- From 2001 to 2006, there was a slight decline in the proportion of businesses which were owner-operated (50.3 per cent), accompanied by a rise in the proportions of businesses with employees (35.9 per cent), in line with national trends.

3. Tourism

- Northern Australia had a very high share of tourist overnight stays (17.7 per cent of international overnight stays and 8.8 per cent of domestic overnight stays).
- The highest number of Northern Australian tourist visits occurred in the northern regions of Queensland, followed by the Northern Territory.

4. Service industries

- Relative to Australia, service industries such as finance, insurance, property and business services employ less people in Northern Australia.
- On the other hand, government administration and defence are larger employers within Northern Australia.