Chapter 9

Main industries

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Chapter 9 Main industries

This chapter discusses industries in Northern Australia, considering agriculture; general business activity over time; mining; tourism; and service industries.

In terms of agriculture, farming in Northern Australia is diversified in response to natural conditions and proximity to markets. Northern Australia has relatively few forests and forestry plantations.

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. Within Northern Australia, the value-adding operations are small compared with the large scale of mining minerals, which export as predominantly unprocessed products.

With respect to business activity, this chapter shows that between 2004 and 2006, the total number of businesses grew across much of Northern Australia, as it did in Australia as a whole. This is commensurate with economic and employment growth in the region over the same period. Whilst numbers of non-employing businesses declined, numbers of employing businesses generally grew sufficiently to compensate for the fall in employment.

Northern Australia has a relatively strong dependence on tourism, as compared with Australia as a whole. In 2005, Northern Australia had a very high share of tourist overnight stays (16.9 per cent of international overnight stays and 7.5 per cent of domestic overnight stays), compared with its usually resident population, which was 4.7 per cent of the Australian total in 2006. Most Northern Australian tourist visits occurred in the northern regions of Queensland, followed by the Northern Territory.

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 that region.

9.1 Agriculture

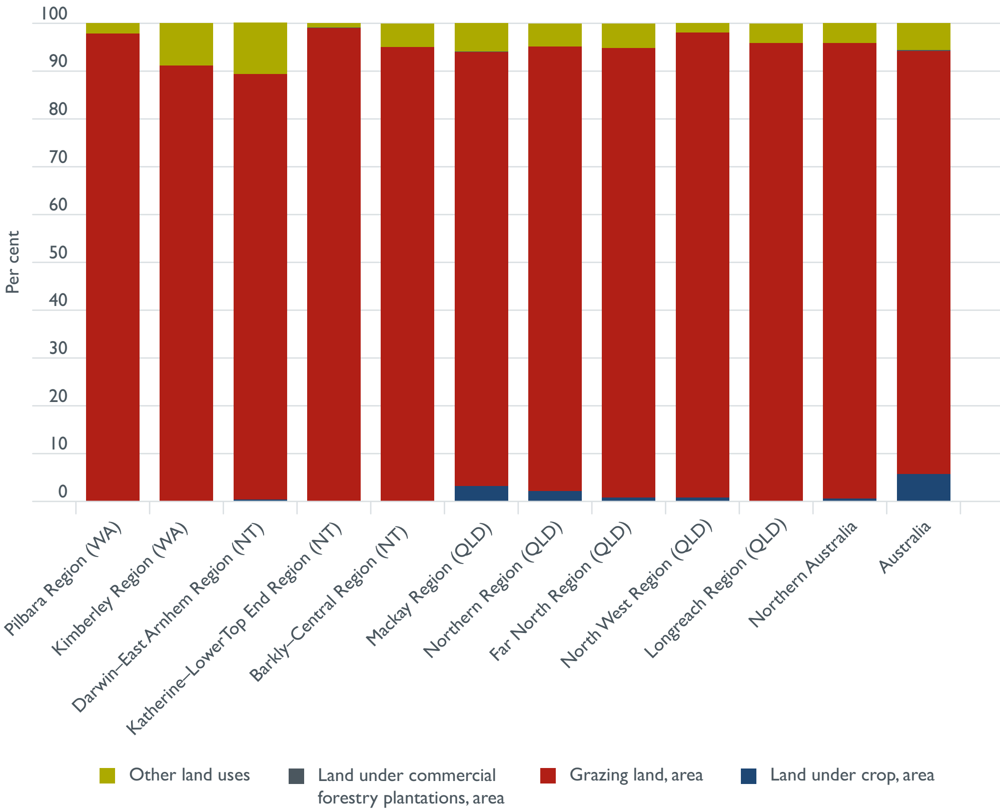
Agriculture in the northern regions of Western Australia and the Northern Territory is based on grazing natural dry land pastures with a small amount of cropping areas in the Darwin-East Arnhem and Katherine-Lower Top End regions and in the Kimberley Region (see Figure 9.1.1). The number of agricultural establishments in the Pilbara and Kimberley regions was only 1.8 per cent of Western Australia's total number of agricultural businesses, but this industry held about 36 per cent of that state's total agricultural land (see Table 9.1.1). Pilbara's agriculture is almost entirely rangeland grazing. The Kimberley has similar enterprises but is augmented by the large irrigation areas around Kununurra supplied by Lake Argyle.

A different and more diversified agriculture has developed in the northern regions of Queensland, where farms are smaller than in the rest of Northern Australia. A relative abundance of water, especially in the Mackay and Northern regions, allows for more cropping. Cropping and horticulture industries include sugar cane and a wide variety of fruits, vegetables and nuts.

Another feature of Northern Australian agriculture is that there are few forests and forestry plantations, most of which are in the Mackay and Katherine-Lower Top End regions.

More information about agricultural land uses, production values, and water use in Northern Australia can be found in the electronic background data (on CD or Internet).

Figure 9.1.1 Northern Australia—land use by region, 2005–06



Source: ABS (2008i).

Table 9.1.1 Northern Australia—agricultural land use, by region, 2005–06

Region	Land use						Land use (per cent)				Percentage of the state	
	Total area (ha)	Number of establishments	Land under crop (ha)	Grazing land, area (ha)	Land under commercial forestry plantations, area (ha)	Other land uses (ha)	Land under crop, area	Grazing land, area (ha)	Land under commercial forestry plantations, area	Other land uses (ha)	Percentage of the state's total area	Percentage of the state's farming establishments
Northern Australia (WA)	35 086 687	257	15 170	32 940 562	383	2 130 572	0.0	93.9	0.0	6.1	35.6	1.8
Pilbara Region	15 064 585	60	0	14 725 746	0	338 839	0.0	97.8	0.0	2.2	15.3	0.4
Kimberley Region	20 022 102	197	15 170	18 214 816	383	1 791 733	0.1	91.0	0.0	8.9	20.3	1.4
Western Australia state total	98 654 515	14 238	7 292 868	84 764 112	158 631	6 438 904	7.4	85.9	0.2	6.5	100.0	100.0
Northern Australia (NT)	51 628 526	630	31 039	49 557 796	10 122	2 029 569	0.1	96.0	0.0	3.9	87.3	97.7
Darwin-East Arnhem Region	2 757 166	371	10 133	2 450 513	32	296 488	0.4	88.9	0.0	10.8	4.7	57.5
Katherine-Lower Top End Region	17 483 681	166	20 519	17 289 066	10 090	164 006	0.1	98.9	0.1	0.9	29.6	25.7
Barkly-Central NT Region	31 387 679	93	387	29 818 217	0	1 569 075	0.0	95.0	0.0	5.0	53.1	14.4
Northern Territory total	59 127 149	645	31 040	56 811 592	10 122	2 274 395	0.1	96.1	0.0	3.8	100.0	100.0
Northern Australia (QLD)	75 617 644	8 725	901 327	72 034 817	9 591	2 671 909	1.2	95.3	0.0	3.5	52.0	27.5
Mackay Region	9 601 118	2 782	311 566	8 719 879	5 358	564 315	3.2	90.8	0.1	5.9	6.6	8.8
Northern Region	6 908 161	1 849	143 859	6 427 718	161	336 423	2.1	93.0	0.0	4.9	4.7	5.8
Far North Region	16 051 521	3 127	120 702	15 087 668	3 712	839 439	0.8	94.0	0.0	5.2	11.0	9.9
North West Region	40 677 533	859	325 158	39 519 029	0	833 346	0.8	97.2	0.0	2.0	28.0	2.7
Longreach Region	2 379 311	108	42	2 280 523	360	98 386	0.0	95.8	0.0	4.1	1.6	0.3
Queensland state total	145 523 352	31 693	2 540 565	135 563 342	224 576	7 194 869	1.7	93.2	0.2	4.9	100.0	100.0
Northern Australia subtotal	162 332 857	9 612	947 536	154 533 175	20 096	6 832 050	0.6	95.2	0.0	4.2	37.3 per cent of Australia's total	6.3 per cent of Australia's total
Australia total	434 942 511	152 514	24 816 060	384 736 970	988 911	24 400 570	5.7	88.5	0.2	5.6	–	–

Notes: Land under crop includes vegetables, fruits, nuts, broadacre crops, grapes and nurseries. Grazing land includes pastures and rangelands. Percentages for the regions and for the Northern Australia state subtotals are calculated out of the state total. Percentages for each state's total are calculated out of Australian total. The scope of the data includes businesses undertaking agricultural activity with an estimated value of agricultural operations of $5000 or more. State percentages provided in the table for Western Australia, the Northern Territory and Queensland are proportions of the Australian total for each land use category.

Source: ABS (2008i).

9.2 Business activity—entries, exits and dynamics

In 2004 and 2006, the total number of businesses grew across much of northern Australia, as it did in Australia as a whole (see Table 9.2.1). This is commensurate with economic and employment growth in the region over the same period. Whilst numbers of non-employing[27] businesses declined, numbers of employing businesses generally grew to an extent which more than compensated for this.

Proportionately, growth in the number of businesses was highest in the Longreach (8.4 per cent) and Mackay (8.2 per cent) regions of Northern Australia. The number of businesses declined in the Kimberley (1.5 per cent), Katherine-Lower Top End (1.1 per cent) and Darwin-East Arnhem (0.6 per cent) regions. However, this did not equate with a reduction in employment in the Darwin-East Arnhem or Kimberley regions (see Chapter 4, section 4.4), because most of the business exits were non-employing businesses, and many of the new business entries employed staff.

Across most of the Northern Australian regions, as in Australia generally, the number of non-employing businesses declined between 2004 and 2006 (see Figure 9.2.1). The largest declines were in the Katherine-Lower Top End Region of the Northern Territory (declining by 12.9 per cent from 534 to 465 businesses), and the Kimberley Region of Western Australia (declining by 10.2 per cent from 1299 to 1167 businesses). However, the number of businesses without employees increased in Mackay (increasing by 0.9 per cent from 9237 to 9318 businesses), Northern Queensland (increasing by 1.5 per cent from 8727 to 8856 businesses) and Longreach (increasing by 1.9 per cent from 324 to 330 businesses).

At the same time, the number of businesses with numbers of employees increased, again following similar patterns of growth experienced across the whole of Australia. Proportionately, the largest increases in the number of businesses employing five or more people occurred in Longreach (increasing 20 per cent from 90 to 108 businesses), and the Katherine-Lower Top End Region (increasing 11.8 per cent from 153 to 171 businesses). Only one Northern Australian region, the Kimberley, saw a decline in businesses employing five or more people, falling 1.4 per cent from 513 to 504 businesses.

27. Non-employing businesses include those operated solely by their owners (for example, consultants and contractor) and those operated by people working for commission only.

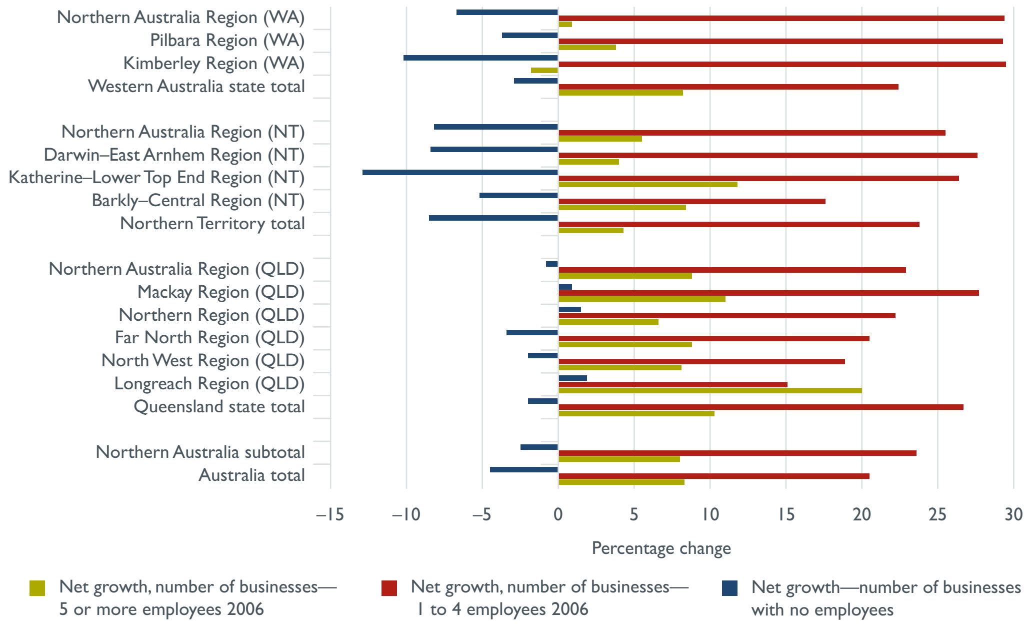
Table 9.2.1 Northern Australia—net growth of the number of business establishments by type, 2004–06

Region	*Number of businesses–no employees 2004*	*Number of businesses–no employees 2006*	*Net growth–number of businesses with no employees (per cent)*	*Number of businesses–1 to 4 employees 2004*	*Number of businesses–1 to 4 employees 2006*	*Net growth, number of businesses–1 to 4 employees 2006 (per cent)*	*Number of businesses–5 or more employees 2004*	*Number of businesses–5 or more employees 2006*	*Net growth, number of businesses–5 or more employees 2006 (per cent)*	*Number of Businesses (all business types) 2004*	*Number of Businesses (all business types) 2006*	*Net growth in business numbers, all businesses types (per cent)*
Northern Australia (WA)	2 826	2 637	–6.7	765	990	29.4	993	1 002	0.9	4 584	4 629	1.0
Pilbara Region	1 527	1 470	–3.7	399	516	29.3	480	498	3.8	2 406	2 484	3.2
Kimberley Region	1299	1 167	–10.2	366	474	29.5	513	504	–1.8	21 78	2 145	–1.5
Western Australia state total	121 386	117 861	–2.9	37 233	45 573	22.4	29 604	32 046	8.2	188 223	195 480	3.9
Northern Australia (NT)	7 734	7 101	–8.2	1 926	2 418	25.5	1 926	2 031	5.5	11 586	11 550	–0.3
Darwin-East Arnhem Region	5 877	5 382	–8.4	1 392	1 776	27.6	1 416	1 473	4.0	8 685	8 631	–0.6
Katherine-Lower Top End Region	534	465	–12.9	159	201	26.4	153	171	11.8	846	837	–1.1
Barkly-Central NT Region	1 323	1 254	–5.2	375	441	17.6	357	387	8.4	2 055	2 082	1.3
Northern Territory total	8 802	8 055	–8.5	2 205	2 730	23.8	2 361	2 463	4.3	13 368	13 248	–0.9
Northern Australia (QLD)	33 513	33 231	–0.8	10 884	13 371	22.9	9 981	10 863	8.8	54 378	57 465	5.7
Mackay Region	9 237	9 318	0.9	3 087	3 942	27.7	2 682	2 976	11.0	15 006	16 236	8.2
Northern Region	8 727	8 856	1.5	3 123	3 816	22.2	2 754	2 937	6.6	14 604	15 609	6.9
Far North Region	13 605	13 140	–3.4	3 975	4 788	20.5	3 939	4 284	8.8	21 519	22 212	3.2
North West Region	1 620	1 587	–2.0	540	642	18.9	516	558	8.1	2 676	2 787	4.1
Longreach Region	324	330	1.9	159	183	15.1	90	108	20.0	573	621	8.4
Queensland state total	237 522	232 797	–2.0	74 223	94 011	26.7	57 978	63 966	10.3	369 723	390 774	5.7
Northern Australia subtotal	44 073	42 969	–2.5	13 575	16 779	23.6	15 174	16 395	8.0	81 825	85 467	4.5
Australia total	1 211 466	1 156 497	–4.5	411 192	495 462	20.5	288 888	312 984	8.3	1 911 546	1 964 943	2.8

Note: This table shows the net increase or decrease in the number of businesses by business size by region. For the purpose of the business statistics provided above, the ABS definition of 'employment' excludes non-salaried directors; volunteers; persons paid by commission only; and self employed persons such as consultants and contractors.

Source: ABS (2008j).

Figure 9.2.1 Northern Australia—net growth in the number of businesses by business type



Note: The figure above shows net growth (or decline) in the number of businesses by business type by region, expressed as percentages.

Source: ABS (2008j).

Table 9.2.2 shows that the distribution of business types (employing or non-employing) changed slightly between 2001 and 2006. Overall, there was a small decline in the proportion of businesses which were owner-operated, accompanied by a rise in the proportions with employees, again in line with trends followed across the country as a whole. This was also the case in Australia and the states of Queensland, Northern Territory and Western Australia as a whole.

Table 9.2.2 Northern Australia—proportion of businesses by business type, and change over time, 2004–06.

Region	*Number of businesses 2004*	*Non-employing businesses (per cent of all businesses per region) 2004*	*Employing businesses: 1 to 4 employees (per cent of all businesses per region) 2004*	*Employing businesses: 5 or more employees (per cent of all businesses per region) 2004*	*Number of businesses 2006*	*Non-employing businesses (per cent of all businesses per region) 2006*	*Employing businesses: 1 to 4 employees (per cent of all businesses per region) 2006*	*Employing businesses: 5 or more employees (per cent of all businesses per region) 2006*
Northern Australia (WA)	4 584	61.6	16.7	21.7	4 629	57.0	21.4	21.6
Pilbara Region	2 406	63.5	16.6	20.0	2 484	59.2	20.8	20.0
Kimberley Region	2 178	59.6	16.8	23.6	2 145	54.4	22.1	23.5
Western Australia state total	188 223	64.5	19.8	15.7	195 480	60.3	23.3	16.4
Northern Australia (NT)	11 586	66.8	16.6	16.6	11 550	61.5	20.9	17.6
Darwin-East Arnhem Region	8 685	67.7	16.0	16.3	8 631	62.4	20.6	17.1
Katherine-Lower Top End Region	846	63.1	18.8	18.1	837	55.6	24.0	20.4
Barkly-Central NT Region	2 055	64.4	18.2	17.4	2 082	60.2	21.2	18.6
Northern Territory total	13 368	65.8	16.5	17.7	13 248	60.8	20.6	18.6
Northern Australia (QLD)	65 655	51.0	16.6	15.2	69 288	48.0	19.3	15.7
Mackay Region	15 006	61.6	20.6	17.9	16 236	57.4	24.3	18.3
Northern Region	14 604	59.8	21.4	18.9	15 609	56.7	24.4	18.8
Far North Region	21 519	63.2	18.5	18.3	22 212	59.2	21.6	19.3
North West Region	2 676	60.5	20.2	19.3	2 787	56.9	23.0	20.0
Longreach Region	573	56.5	27.7	15.7	621	53.1	29.5	17.4
Queensland state total	369 723	64.2	20.1	15.7	390 774	59.6	24.1	16.4
Northern Australia subtotal	81 825	53.9	16.6	15.8	85 467	50.3	19.6	16.3
Australia total	1 911 546	63.4	21.5	15.1	1 964 943	58.9	25.2	15.9

Note: This table illustrates the total number of businesses by region in 2004 and 2006, and the proportions of those businesses which were non-employing, employing (1 to 4 employees), and employing (5 or more employees).

Source: ABS (2008j).

9.3 Mining and minerals processing

There are diverse mineral deposits located across many regions of Northern Australia (see Map 9.3.1) but in terms of tonnage mined, two mining operations dominate: mining of iron ore for export in the Pilbara Region and mining of black coal for export and domestic use in eastern Queensland's MacKay Region (see Table 9.3.1).

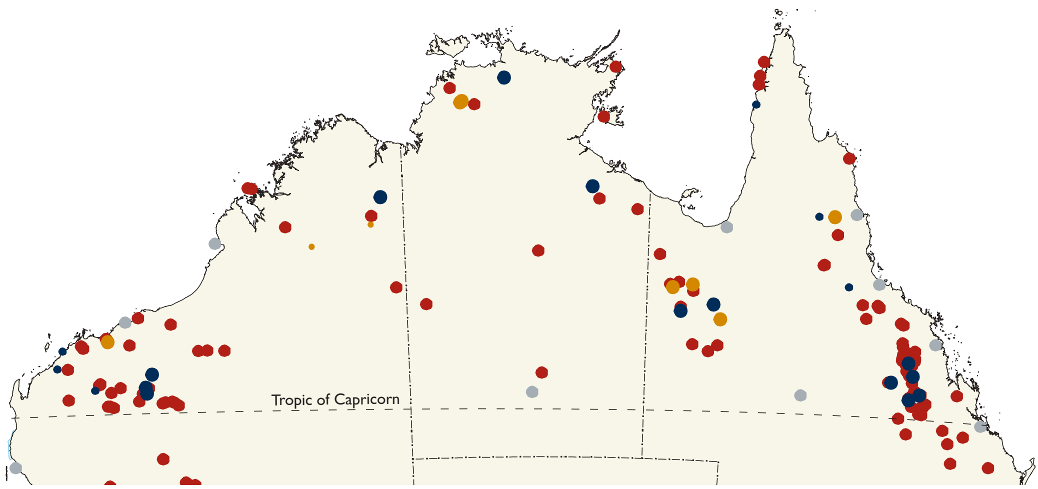
Table 9.3.1 lists all on-shore operating mines in Northern Australia by region, in 2008. As illustrated, in Northern Australia operating and/or projected mines are located in all regions.

A number of gas and oil producing rigs are located off-shore in the Timor Sea and North-West Shelf, which are shown on Map 9.3.1.

Within Northern Australia, the value-adding operations are small compared with the large scale of mining minerals, which are exported as predominantly unprocessed products, such as ores, concentrates or ingots.

Gold and silver are mined in the Northern Region of Queensland and in other regions of Northern Australia a number of metals and minerals are being extracted where they occur in specific geological deposits. For example, in the Far North Region, zinc, copper, lead and silver ores are being mined in the Etheridge area. Similarly, in the Darwin-East Arnhem Region, zinc, lead, silver, uranium, cadmium and copper are mined. Bauxite and antimony are being mined in the Gulf area.

Map 9.3.1 Northern Australia—existing mines, 2008



- Operating mine
- Operating mine either undergoing expansion or further development
- Deposit on which development has commenced or for which a decision to mine has been announced
- Mine closed during 2008 or for which closure has been announced

Source: Geoscience Australia.

Table 9.3.1 Northern Australia—operating mines, 2008

Region/SLA name	*Name*	*Commodity*
Northern Australia (QLD)		
Mackay Region		
Belyando (S)	Blair Athol	Coal—black
Belyando (S)	Carborough Downs	Coal—black
Belyando (S)	Goonyella	Coal—black
Belyando (S)	Isaac Plains	Coal—black
Belyando (S)	Moranbah North	Coal—black
Belyando (S)	North Goonyella	Coal—black
Belyando (S)	Peak Downs	Coal—black
Bowen (S)	Collinsville	Coal—black
Bowen (S)	Eastern Creek	Coal—black
Bowen (S)	Newlands	Coal—black
Broadsound (S)	Foxleigh	Coal—black
Broadsound (S)	German Creek	Coal—black
Broadsound (S)	German Creek East	Coal—black
Broadsound (S)	Lake Lindsay	Coal—black
Broadsound (S)	Norwich Park	Coal—black
Broadsound (S)	Saraji	Coal—black
Nebo (S)	Burton	Coal—black
Nebo (S)	Coppabella	Coal—black
Nebo (S)	Hail Creek	Coal—black
Nebo (S)	Millenium	Coal—black
Nebo (S)	Moorvale	Coal—black
Nebo (S)	Poitrel	Coal—black
Nebo (S)	South Walker Creek	Coal—black
Nebo (S)	Suttor Creek	Coal—black
Northern Region		
Dalrymple (S)	Nolans	Gold
Dalrymple (S)	Ravenswood	Gold, Silver
Dalrymple (S)	Rishton	Gold
Dalrymple (S)	Sarsfield	Gold
Dalrymple (S)	Vera-Nancy	Gold, Silver
Far North Region		
Cook (S)	Collingwood	Tin
Cook (S)	Norton	Gold
Cook (S)	Skardon River	Kaolin
Cook (S)	Weipa	Bauxite
Etheridge (S)	Balcooma	Zinc, Copper, Lead, (Silver, Gold, Alunite)
Etheridge (S)	Dry River South	Zinc, Copper, Lead, Silver, (Gold)
Herberton (S)	Mt Garnet	Zinc, Copper, (Silver)
Hope Vale (S)	Cape Flattery	Silica sand
North West Region		
Burke (S)	Century	Zinc, (Lead, Silver, Cadmium)
Cloncurry (S)	Duchess	Phosphate
Cloncurry (S)	Ernest Henry	Copper, Gold
Cloncurry (S)	Mt Cuthbert	Copper, Gold, Silver
Cloncurry (S)	Mt Watson	Copper, Gold
Cloncurry (S)	Osborne	Copper, Gold

(continued)

Table 9.3.1 Northern Australia—operating mines, 2008 (continued)

Region/SLA name	*Name*	*Commodity*
North West Region (continued)		
McKinlay (S)	Cannington	Silver, Zinc, Lead, (Bismuth, Antimony)
McKinlay (S)	Eloise	Copper, Gold, (Silver)
Mount Isa (C)	George Fisher	Zinc, Lead, Silver, Copper
Mount Isa (C)	Lady Annie	Copper, Gold
Mount Isa (C)	Mount Kelly	Copper, Gold
Mount Isa (C)	Mt Gordon	Copper
Mount Isa (C)	Mt Isa	Copper, Zinc, (Lead, Silver)
Northern Australia (NT)		
Darwin-East Arnhem Region		
Daly	Brocks Creek	Gold, (Silver)
Daly	Fountain Head	Gold
Daly	Rising Tide	Gold
East Arnhem–Bal	Gove	Bauxite
Groote Eylandt	Groote Eylandt	Manganese ore, (Manganese)
South Alligator	Ranger	Uranium
South Alligator	Toms Gully	Gold
Katherine-Lower Top End Region		
Gulf	McArthur River	Zinc, Lead, (Silver, Cadmium, Copper, Antimony)
Gulf	Merlin	Diamond—gem and cheap gem, Diamond—undifferentiated
Gulf	Redbank	Copper
Barkly-Central NT Region		
Sandover	Mud Tank	Vermiculite
Sandover	Test Case 2	Copper
Sandover	White Range	Gold
Tableland	Bootu Creek	Manganese ore, (Manganese)
Tanami	Callie	Gold
Northern Australia (WA)		
Pilbara Region		
Ashburton (S)	Brockman No2	Iron ore, Iron
Ashburton (S)	Channar	Iron, Iron ore
Ashburton (S)	Deepdale J	Iron, Iron ore
Ashburton (S)	Eastern Range	Iron, Iron ore
Ashburton (S)	Marandoo	Iron, Iron ore
Ashburton (S)	Mt Tom Price	Iron ore, Iron
Ashburton (S)	Nammuldi	Iron ore, Iron
Ashburton (S)	Paraburdoo	Iron ore, Iron
East Pilbara (S)	BHPBYandi	Iron ore, (Iron)
East Pilbara (S)	HIYandi	Iron
East Pilbara (S)	Jimblebar	Iron ore, (Iron)
East Pilbara (S)	Mining Area C	Iron ore, (Iron)
East Pilbara (S)	Mt Whaleback	Iron ore, Iron
East Pilbara (S)	Nifty	Copper
East Pilbara (S)	Orebody 18	Iron
East Pilbara (S)	Orebody 25	Iron
East Pilbara (S)	Orebody 29	Iron
East Pilbara (S)	Orebody 30	Iron
East Pilbara (S)	Telfer	Gold, Copper
East Pilbara (S)	West Angelas	Iron ore, Iron

(continued)

Table 9.3.1 Northern Australia—operating mines, 2008 (continued)

Region/SLA name	*Name*	*Commodity*
Pilbara Region (continued)		
East Pilbara (S)	Woodie Woodie	Manganese ore, (Manganese)
East Pilbara (S)	Yarrie	Iron ore, (Iron)
Port Hedland (T)	Wodgina	Tantalum pentoxide, Tin, Gemstones, Tantalum
Roebourne (S)	Radio Hill	Nickel, Copper, Cobalt, Palladium, Platinum group elements
Roebourne (S)	Whim Creek	Copper, Zinc
Roebourne (S)	Whundo	Copper, Zinc, (Silver)
Kimberley Region		
Derby-West Kimberley (S)	Cockatoo Island	Iron ore, Iron
Derby-West Kimberley (S)	Ellendale	Diamond–undifferentiated
Derby-West Kimberley (S)	Koolan Island	Iron ore, (Iron)
Derby-West Kimberley (S)	Pillara	Zinc, (Lead, Silver, Cadmium)
Halls Creek (S)	Coyote	Gold
Halls Creek (S)	Sally Malay	Nickel, Copper, Cobalt, Platinum group elements
Wyndham-East Kimberley (S)	Argyle	Diamond–undifferentiated
Wyndham-East Kimberley (S)	Argyle Alluvials	Diamond–undifferentiated

Note: Northern Australia is based on regions which fall above the Tropic of Capricorn. The subregions are made up of Statistical Local Area (SLA) boundaries. Where the data did not precisely meet this definition, approximations were given. Areas with a latitude greater than –24 degrees were excluded.

Source: Geoscience Australia (2008b).

Projected mining investments listed in Table 9.3.2 are all located in Northern Australia and include expansion of existing mining operations, adding new mining projects, as well as new or expanding processing plants. The projects listed are in various stages of projection, planning, approval or construction. Most of the coal mining investments are made in the known deposits in the MacKay Region. Similarly, investments in the Pilbara's iron ore deposits reflect the development of the resource and expansion of the most directly related infrastructure, such as raising the capacity of railway in the Dampier iron ore project in Roebourne (see Table 9.3.2).

Table 9.3.2 Northern Australia—projected mining investments, 2008

Region/SLA name	*Name*	*Commodity*	*Capacity*	*Status*	*Capital expenditure*	*Technology*	*Commencement*
Northern Australia (QLD)							
Mackay Region							
N/A	Hay Point–expansion	Black Coal	32 to 40 Mtpa	Under Construction	US$100 million		2006
Belyando (S)	Clermont	Black Coal	12.2 Mtpa	Under Construction	US$750 million	Open-pit	2010
Belyando (S)	Eagle Downs	Coal	4 Mtpa coking coal	Proposed	$620 million	Longwall	Unknown
Belyando (S)	Goonyella–Expansion	Black Coal–Coking	Stage 1: 52 Mtpa to 57 Mtpa; Stage 2: 57 to 59 Mtpa	Operating	Stage 1: US$94 million; Stage 2: $US57 million	Open-cut	Stage1: mid-2005; Stage 2: mid-2006
Belyando (S)	Grosvenor	Black Coal–Coking	5 Mtpa	Proposed	$500 million	Underground longwall	Unknown
Belyando (S)	New Saraji	Coal	5 Mtpa coking coal	Proposed	Unknown	Longwall	1012
Bowen (S)	Sonoma	Black Coal–Coking and Thermal	2.0 Mtpa	Operating	Unknown	Open-cut	2007
Broadsound (S)	Middlemount	Coal	1.8 Mtpa	Bulk sampling	Unknown	Open-cut	2009
Broadsound (S)	Olive Downs	Coal–Coke/PCI	1.0 Mtpa Coke/PCI	Proposed	$50 million	Open-cut	2007
Broadsound (S)	Vermont	Black Coal–Coking/PCI	4 Mtpa	Operating	$176 million	Open-cut	2008
Livingstone (S)–Pt B	Marlborough	Nickel Cobalt	3.7 Mtpa ore for 25 kt Ni; 2 kt Co	New project, feasibility completed. On hold	$688 million	Open-pit and high pressure acid leach	2010
Nebo (S)	Broughton	Black Coal–Coking	Unknown	Proposed	Unknown	Open-cut	2007
Nebo (S)	Ellensfield	Coal	5.5 Mtpa ROM	Proposed	Unknown	Longwall	2009
Northern Region							
N/A	Abbot Point–expansion	Black Coal	21 to 50 Mtpa	Proposed	$770 million		Unknown
N/A	Dalrymple Bay–expansion	Black Coal	Stage1: 55 to 60 Mtpa; Stage 2: 60 to 68 Mtpa; Further Stages: to 85 Mtpa	Under Construction	Stage 1: $30 million; Stage 2: $350 million; further Stages: $640 million		Stage 1: early 2006; Stage 2: 2008; further Stages 2009
City	Townsville–Zn	Zinc	Zinc ferrite processing plant	Operating	$50 million		2007
City	Yabulu–Expansion	Nickel	35 ktpa Ni 1.3 ktpa Co (linked to Ravensthorpe mining project, WA)	Under Construction	$400 million	Refinery	2007

(continued)

Table 9.3.2 Northern Australia—projected mining investments, 2008 (continued)

Region/SLA name	Name	Commodity	Capacity	Status	Capital expenditure	Technology	Commencement
Mackay Region (continued)							
Dalrymple (S)	Lucky Break	Nickel, Cobalt	Stage1:0.25 Mtpa for 1600tpa of Nickel in concentrate; Stage 2: 1.5Mtpa for 10 000tpa Nickel in concentrate	Under construction	$20 million	Open-pit then Heap and Vat Leach	Stage1: 2008; Stage2: 2009
Dalrymple (S)	Nornico	Nickel, Cobalt	10 ktpa Ni; 0.435 ktpa Co	Proposed	$278 million	Open-pit and Heap Leach	Unknown
Far North Region							
Aurukun (S)	Aurukun	Bauxite, Alumina	7.5 Mtpa of Bauxite; 2.1 Mtpa of Alumina	Proposed	$3.0 billion	Open-pit and Refinery	2011
Cook (S)	Ely	Bauxite	2.0 Mtpa bauxite	Operating	Unknown	Open-cut	2007
Etheridge (S)	Agate Creek	Gold	1.5 Mtpa for 60 000oz per ann Au	Proposed	Unknown	Open-pit and Carbon-In-Pulp	Unknown
Etheridge (S)	Einasleigh	Copper, Gold, Silver	1.0 Mtpa	Proposed	Unknown	Open-pit and underground	2009
Mareeba (S)	Baal Gammon	Copper Tin Silver Indium	750,000 tpa	Proposed	Unknown	Open-pit	Unknown
Mareeba (S)	Mungana	Zinc, Copper, Lead Gold, Silver	400 ktpa ore for 60 000 tpa concentrates	Under construction	$60 million	Underground mine and surface treatment plant	2009
Mareeba (S)	Watershed	Tungsten	2.0 Mtpa for 4,000 tpa concentrate of contained WO3	Proposed	Unknown	Open-pit	2009
Mareeba (S)	Wolfram Camp	Tungsten, Molybdenum	150 000 tpa ore	Under construction	$30 million	Open-pit	2008
North West Region							
Burke (S)	Westmoreland	Uranium	1 400 tpa of U3O8	Proposed	$275 million	Open-pit & Acid Leach	Unknown
Cloncurry (S)	Cloncurry	Copper	0.6 Mtpa for 36 ktpa of concentrates for 10 to 12ktpa of Cu in concentrates	Proposed	Unknown	Open-pit	2009

(continued)

Table 9.3.2 Northern Australia—projected mining investments, 2008 (continued)

Region/SLA name	*Name*	*Commodity*	*Capacity*	*Status*	*Capital expenditure*	*Technology*	*Commencement*
North West Region (continued)							
Cloncurry (S)	Dugald River	Lead, zinc, silver	1.8 Mtpa ore	Proposed	$500 million	Underground operation	2011
Cloncurry (S)	Ernest Henry–underground	Copper	75 ktpa Cu concentrate	Proposed	$26 million	Underground mining	2011
Cloncurry (S)	Lady Annie	Copper	19 ktpa LME grade copper cathode	Operating	$86 million	Open-pit, heap leaching, solvent extraction and electrowinning	2007
Cloncurry (S)	Leichardt–Mt Watson	Copper	Stage 1: 5.5 ktpa Copper Metal	Operating	$10M	Open-pit, Heap Leach and Solvent Extraction/ Electrowinning	2007
Cloncurry (S)	Rocklands	Copper	3 Mtpa expandable to 5 Mtpa	Proposed	Unknown	Flotation	2010
Cloncurry (S)	Roseby	Copper	Initially 5Mtpa Sulphides then 8Mtpa Oxides for 34 ktpa Cu	Proposed	$338million	Open-pit	2008
Cloncurry (S)	White Range	Copper	15ktpa Copper Cathode	Proposed	$39 million	Open-pit	2007
Mount Isa (C)	Lady Loretta	Lead, Zinc, Silver	1.0 Mtpa for 125 ktpa Zn; 50 ktpa Pb; 850,000 oz Ag	Proposed	$200 million	Underground mine	2009
Mount Isa (C)	Mt Isa–expansion	Silver, Lead, Zinc	Expansion from 5.5 to 8 Mtpa	Under construction	$160 million	Open-pit operation	2008
Mount Isa (C)	Valhalla	Uranium	2,700 tpa U3O8	Proposed	$400 million	Open-pit	2012
Gladstone Region							
N/A	Wiggins Island	Black coal	Phase 1: 20Mtpa; Ulimate 70Mtpa	Proposed	Phase 1: $400 million		2009
Calliope (S)–Pt A	Boyne Island – Expansion	Aluminium	170 kt	Expansion, pre-feasibility study underway	$1 billion	Smelter	Unknown

(continued)

Table 9.3.2 Northern Australia—projected mining investments, 2008 (continued)

Region/SLA name	*Name*	*Commodity*	*Capacity*	*Status*	*Capital expenditure*	*Technology*	*Commencement*
Gladstone Region (continued)							
Gladstone (C)	Gladstone–expansion	Black Coal	Stage1: 40 to 54 Mtpa; Stage 2: 54 to 62 Mtpa	Operating	Stage 1:$167 million; Stage 2: $46.5 million		2007
Gladstone (C)	Gladstone–Ferrochrome	Ferrochrome	120ktpa Stage 1	Proposed	$200 million Stage 1, $100 million Stage 2	Unknown	Unknown
Gladstone (C)	Stuar–Stage 2	Oil Shale–Petroleum	14.8 kbd	New project, under review	$450 million		Unknown
N/A	Gladstone–Nickel	Nickel, coabalt	30 ktpa Nickel and 1.4 ktpa Cobalt	Proposed	$1.3 billion	Refinery	2009
N/A	Gladstone–Steel	Steel	Unknown	Proposed	$2.8 billion	Unknown	Unknown
Northern Australia (NT)							
Darwin-East Arnhem Region							
Coomalie (CGC)	Batchelor–Mg	Magnesium	12.5 kt magnesium metal (stage 1)	New project, feasibility study	$127 million		Unknown
Coomalie (CGC)	Browns	Cobalt Copper Nickel	1.3 Mtpa ore for 10 ktpa Cu, 1 ktpa Co, 750 tpa Ni	Operating	$100 million	Open-Pit, Heap Leach, Solvent Extraction, Electrowinning	2008
Daly	Frances Creek	Iron Ore	1.0 Mtpa 2007; 1.5 Mtpa from 2008	Operating	$10 million	Open-pit	2007
East Arnhem—Bal	Gove–Expansion	Aluminium	Increasing capacity from 2.1 to 3.8 Mtpa	Under construction	$1.5 billion	Alumina refining	2007
South Alligator	Jabiluka	Uranium	1 kt U3O8	New project, on hold	$70 million		Unknown
South Alligator	Ranger	Uranium	0.4 ktpa U3O8	Under construction	$27.6 million	Processing plant	2008
Katherine-Lower Top End Region							
Gulf	McArthur River–Open Pit	Lead and Zinc	1.8 Mtpa	Operating	$66 million	Open Pit	2007
Katherine (T)	Maud Creek	Gold	100,000 oz per ann	Proposed	$25 million	Underground and GEOCOAT	2009

(continued)

Table 9.3.2 Northern Australia—projected mining investments, 2008 (continued)

Region/SLA name	Name	Commodity	Capacity	Status	Capital expenditure	Technology	Commencement
Barkly-Central NT Region							
Hanson	Nolans Bore	Rare Earths Uranium Phosphate	750 ktpa for 20 ktpa REO, 150tpa U3O8	Proposed	$75 million	Open-pit and processing plant	2011
Sandover	Harts Range	Garnet	Stage 1 80 ktpa of abrasives	Proposed	$4 million	Open-pit	2008
Sandover	Molyhil	Molybdenum, Tungsten	400,000 tpa	Proposed	$60 million	Open-pit	2009
Tennant Creek–Bal	Wonarah	Phosphate	3 Mtpa	Proposed	$50 million	Open pit	2010
Northern Australia (WA)							
Pilbara Region							
N/A	Cape Lambert –Iron	Iron	3.6 Mtpa	Proposed	$1.9 billion	Direct Reduction Iron (DRI)	Unknown
Ashburton (S)	Brockman 4	Iron Ore	22 Mtpa	Under construction	US$1,521 million	Open-pit	2010
Ashburton (S)	Cloud Break	Iron Ore	45 Mtpa	Operating	$3.7 billion	Open-pit	2008
Ashburton (S)	Manyingee	Uranium	Unknown	Proposed	$30 million	In-Situ Leaching	Unknown
Ashburton (S)	Mesa A–Warramboo	Iron Ore	25 Mtpa pisolites	Under construction	US$901 million	Open-cut	2009
Ashburton (S)	West Pilbara	Iron Ore	25 Mtpa	Proposed	$2 billion	Open-pit	2011
Ashburton (S)	Yannarie Solar	Salt	3 Mtpa	Proposed	Unknown		2008
East Pilbara (S)	Golden Gate	Gold	1.0 Mtpa for 70,000oz/ann	Proposed	$42 million	Open-cut and Carbon-In-Pulp	2007
East Pilbara (S)	Hope Downs	Iron ore	Stage1: 22 Mtpa; Stage2: 30 Mtpa	Operating	US$1.0 billion	Open-pit	Stage 1: 2008
East Pilbara (S)	Kintyre	Uranium	1.2ktpa Uranium Oxide	Proposed	$120 million	Open-pit	Unknown
East Pilbara (S)	Marillana	Iron Ore	Stage 1: 2.0Mtpa; Stage 2: 10 Mtpa	Proposed	$300 million	Open-pit	Stage 1: 2009; Stage 2: 2011
East Pilbara (S)	Maroochydore	Copper	60 kt Cu cathode	Feasibility study underway	$200 million	Open-pit	Unknown
East Pilbara (S)	Mindy Mindy	Iron Ore	5.0 Mtpa	Proposed	$50 million	Open-pit	Unknown
East Pilbara (S)	Panorama–Sulphur Springs	Zinc Copper	1.5 Mtpa for 80,000tpa Cu and 90,000tpa Zn	Under construction	$213 million	Open-pit and Concentrator	2009
East Pilbara (S)	Phils Creek	Iron Ore	1.5 Mtpa DSO	Proposed	Unknown	Open-pit	2010

(continued)

Table 9.3.2 Northern Australia—projected mining investments, 2008 (continued)

Region/SLA name	*Name*	*Commodity*	*Capacity*	*Status*	*Capital expenditure*	*Technology*	*Commencement*
Pilbara Region (continued)							
East Pilbara (S)	Spinifex Ridge	Molybdenum, Copper	20 Mtpa for 11 ktpa of Mo and 12 ktpa of Cu in Concentrates	Proposed	$1 071 million	Open-pit	2009
Exmouth (S)	Exmouth–Limestone	Limestone–Quicklime	1 Mtpa limestone; 200 ktpa quicklime	New project, on hold	$45 million		Unknown
Port Hedland (T)	Abydos	Iron Ore	3 Mtpa DSO	Proposed	$38.5 million	Open-pit	2010
Port Hedland (T)	Nelson Point–RGP 1, 2, 3, 4 and 5	Iron Ore	RGP1: 100 to 110 Mtpa; RGP2: 110 to 118 Mtpa; RGP3: 129 Mtpa; RGP4: 155 Mtpa; RGP5: 200 Mtpa	RGP1: Operating; RGP2: Operating; RGP3: Operating; RGP4: Under construction; RGP5: Under construction	RGP1: US$111 million; RGP2: US$575 million; RGP3: US1.3 billion; RGP4: US$1.4 billion; RGP5: US$1.094 billion	Open-pit	RGP1: end 2004; RGP2: late 2006; RGP3: late 2007; RGP4: 2010; RGP5: 2011
Port Hedland (T)	Pardoo	Iron Ore	2008: 1.0 Mtpa; 2010: 3.0 Mtpa Direct Shipping Ore	Proposed	2008: $9.9 million; 2010: $13 million	Open-pit	2008
Roebourne (S)	Balla Balla	Vanadium Titanomagnetite	3.0 Mtpa vanadium rich titanomagnetite concentrate	Proposed	$240 million		2009
Roebourne (S)	Balmoral Central–magnetite	Iron Ore	70 Mtpa ore	Proposed	5.2 billion	Open-pit and magnetite concentrator	2009
Roebourne (S)	Balmoral Southern–magnetite	Iron Ore	42 Mtpa ore	Proposed	US$2.6 billion	Open-pit, concentrator and DRI	2010
Roebourne (S)	Cape Lambert–magnetite	Iron Ore	15 Mtpa concentrate	Proposed	$600 million	Open-pit and Concentrator	2009
Roebourne (S)	Dampier	Iron Ore	Stage1: Port capacity raised from 74 to 116Mtpa; Stage 2: Port & Rail capacity raised to 140 Mtpa	Under construction	Stage 1: $A945 million Port and $A35 million Rail; Stage 2: US$1.35 billion (including US$690 million for Port)	Open-pit	Stage1: 2005; Stage 2: 2008

(continued)

Table 9.3.2 Northern Australia—projected mining investments, 2008 (continued)

Region/SLA name	*Name*	*Commodity*	*Capacity*	*Status*	*Capital expenditure*	*Technology*	*Commencement*
Pilbara Region (continued)							
Roebourne (S)	Munni Munni PGM	PGM	100 000 ozpa PGM's and gold 5 ktpa Cu and Ni	New project, feasibility study underway	$71 million		Unknown
Roebourne (S)	Sherlock Bay	Nickel	2 Mtpa for 8.85 ktpa of contained Ni	Proposed	$35 million	Open-pit	Unknown
Kimberley Region							
Derby-West Kimberley (S)	Koolan Island	Iron Ore	4 Mtpa Direct Shipping Ore	Operating	$147 million	Open-pit	2007
Derby-West Kimberley (S)	Lennard Shelf–Pillara	Zinc	80ktpa of Zn concentrates over 4 years	Operating	$31 million	Underground	2007
Wyndham-East Kimberley (S)	Argyle	Iron Ore	1.5 to 2.0 Mtpa direct shipping ore	Proposed	$50 million	Open-pit	2009
Wyndham-East Kimberley (S)	Argyle–underground	Diamonds	20 million carats per annum	Under construction	A$1013 million plus $200 million on open-pit 'cut-back'	Underground block caving operation	2007
Wyndham-East Kimberley (S)	Speewah	Fluorspar	100ktpa	Proposed	$20 million	Open-pit	Unknown

Note: This table shows proposed mining projects in the Northern Australia region as at 2008. Northern Australia is based on regions which fall above the Tropic of Capricorn. The subregions are made up of Statistical Local Area (SLA) boundaries. Where the data did not precisely meet this definition, approximations were given. Areas with latitude greater than –24 degrees were excluded.

Source: Geoscience Australia (2008b).

Out of the 63 major minerals processing plants in Australia, only seven were located in Northern Australia in 2008, with another five in the Rockhampton and Gladstone regions (see Table 9.3.3). One of these plants, the Port Hedland pig iron processing plant, is currently being decommissioned. The role of other processing plants is largely pre-processing the mined metal ores in order to reduce the tonnage of material transported that would otherwise be required if the processing took place in smelters located in southern Australia or overseas. For example, zinc and copper refineries in Townsville (Northern Region) produce metal are close to the mine mouth, thus reducing the need for costly transport of low-value ores (per tonne) to a distant processor.

Nearly all of the value-adding operations in Northern Australia are restricted to production of relatively low-processed commodities, such as metals, uranium, gas and oil.

Table 9.3.3 Northern Australia—mineral processing plants, 2008

Region/name	*Location*	*Qualifier*	*Commodity*	*Company*	*Capacity (per annum)*	*Processor type*	*Comments*
Northern Australia (WA)							
Pilbara Region							
Port Hedland	Port Hedland	Direct Reduced Iron	Pig Iron	BHP Billiton	Plant closed	Direct Reduced Iron	The Boodarie HBI plant is to be demolished commencing in 2006 with completion due in 2008
Northern Australia (NT)							
Darwin-East Arnhem Region							
Gove	Gove	Bauxite Refinery	Aluminium	Alcan Aluminium Ltd (owned by Rio Tinto)	3.8 million tonnes (by the end of 2008)	Bauxite Refinery producing Alumina	Operating
Northern Australia (QLD)							
Mackay Region							
Moranbah	170km West of Mackay	Coal Bed Methane	Coal Bed Methane	CH4 Gas Ltd	13PJ of gas		A 400 km pipeline provides gas to Townsville and the Yabulu power station
Northern Region							
Townsville	Townsville	Zinc Refinery	Zinc	Sun Metals Corporation	170 000 tonnes of zinc	Refinery	Operating
Townsville	Townsville	Copper Refinery	Copper	Xstrata	300 000 tonnes of copper cathode	Refinery	Operating
Yabulu	25km North of Townsville	Nickel Refinery	Nickel	QNI (BHP Billiton)	76 000 tonnes of Nickel; 3 200 tonnes of Cobalt	Refinery	Operating
North West Region							
Mt Isa	Mt Isa	Copper and Lead Smelters	Copper and Lead	Xstrata Queensland Ltd	190 000 tonnes of copper in concentrate, 240 000 tonnes of copper in anode	Smelter	Xstrata is to expand the capacity of the smelter at a cost of $41m to increase capacity from 240 to 280 ktpa within the next 18 months

(continued)

Table 9.3.3 Northern Australia—mineral processing plants, 2008 (continued)

Region/name	*Location*	*Qualifier*	*Commodity*	*Company*	*Capacity (per annum)*	*Processor type*	*Comments*
Northern Australia (QLD) (continued)							
Rockhampton Region							
Rockhampton	Parkhurst, Rockhampton	Cement Plant	Cement	Cement Australia Pty Ltd	Not available		Fuel used–Coal
Gladstone Region							
Boyne Island	Gladstone	Aluminium Smelter	Aluminium	Comalco	545 000 tonnes	Smelter	Operating
Gladstone–Cement	Fishermans Landing, Gladstone	Cement Plant	Cement	Cement Australia Pty Ltd	1.6 million tonnes		Fuel used–Coal
Gladstone–QAL	Gladstone	Bauxite Refinery	Aluminium	Queensland Alumina Ltd (QAL)	3.95 million tonnes	Bauxite Refinery producing Alumina	Operating
Yarwun	Yarwun, 10 km NW of Gladstone	Bauxite Refinery	Alumina	Rio Tinto	1.4 million tonnes	Bauxite Refinery producing Alumina	The $1.5 billion refinery commenced in 2006. A US$1.8 billion expansion to 3.4 Mtpa to be completed by 2011

Note: Only the major processing centres were included in this table, not the minesite pre-processing plants.
Source: Geoscience Australia (2008b).

9.4 Tourism

According to Tourism Research Australia's survey data, most tourist overnight stays across Northern Australia and Australia were made by international visitors. By comparison with the usually resident population of the region, Northern Australia received proportionately more overnight visits from tourists than Australia as a whole. In 2005, approximately 16.9 per cent of all international overnight stays, and 7.5 per cent of all domestic overnight stays, occurred in Northern Australia (see Table 9.4.1), although Northern Australia accounted for only 4.7 per cent of Australia's usually resident population in 2006. In other words, the demand for services and infrastructure is significantly higher in Northern Australia than it would be if only the usually resident population were present.

Table 9.4.1 Northern Australia—number of overnight stays by visitor type, by region; proportion of all Australian overnight stays by visitor type, by region, 2005

Region	*International overnight stays 2005*	*Domestic overnight stays 2004–05*	*International overnight stays (proportion of all Australian international overnight stays) 2005*	*Domestic overnight stays (proportion of all Australian domestic overnight stays) 2004–05*
Northern Australia (WA)	113 145	1 168	1.1	1.3
Pilbara Region	47 150	565	0.5	0.6
Kimberley Region	65 995	603	0.7	0.6
Western Australia state total	948 472	8 738	9.5	9.4
Northern Australia (NT)	343 436	1 575	3.4	1.7
Darwin-East Arnhem Region	171 176	915	1.7	1.0
Katherine-Lower Top End Region	1 602	237	0.0	0.3
Barkly-Central NT Region	170 658	423	1.7	0.5
Northern Territory total	576 114	1 962	5.7	2.1
Northern Australia (QLD)	1 239 641	4 270	12.4	4.6
Mackay Region	256 039	1 212	2.6	1.3
Northern Region	133 541	989	1.3	1.1
Far North Region	819 767	1 631	8.2	1.8
North West Region	28 629	370	0.3	0.4
Longreach Region	1 666	69	0.0	0.1
Queensland state total	3 323 171	21 787	33.1	23.4
Northern Australia subtotal	1 696 223	7 013	16.9	7.5
Australia total	10 030 210	93 150	100.0	100.0

Note: This table shows the number of overnight stays by visitor type (international and domestic visitors), and the proportion of all overnight stays in Australia by visitor type, by region.

International data was collected based on calendar years while domestic was collected based on financial years. The TRA data was collated at 2001 ASGC. It appears that TRA was not able to allocate some of the visitor stays to specific 2001 SLAs. As a result, BITRE was unable to allocate approximately 5 per cent of international overnight stays, and 8 per cent of domestic overnight stays, to an appropriate SLA or region when concording the data to 2006 ASGC. For comparative purposes, original TRA 2001 ASGC-based overnight stay totals have been used for Australia and the states in the tables above, to minimise the possibility of further data loss.

Sources: Tourism Research Australia (2005a) and (2005b).

Within Northern Australia, the majority of international tourist overnight stays (approximately 73.1 per cent of overnight stays in Northern Australia) and domestic tourist overnight stays (approximately 60.9 per cent of overnight stays in Northern Australia) occurred in the northern regions of Queensland. The northern regions of Western Australia had the smallest share of tourism overnight stays in Northern Australia.

Table 9.4.2 Northern Australia—proportion of all Northern Australian overnight stays by visitor type by region.

Region	*Percentage of all international overnight stays in Northern Australia 2005*	*Percentage of all domestic overnight stays in Northern Australia 2004–05*
Northern Australia (WA)	6.7	16.7
Pilbara Region	2.8	8.1
Kimberley Region	3.9	8.6
Northern Australia (NT)	20.2	22.5
Darwin-East Arnhem Region	10.1	13.0
Katherine-Lower Top End Region	0.1	3.4
Barkly-Central NT Region	10.1	6.0
Northern Australia (QLD)	73.1	60.9
Mackay Region	15.1	17.3
Northern Region	7.9	14.1
Far North Region	48.3	23.3
North West Region	1.7	5.3
Longreach Region	0.1	1.0
Northern Australia subtotal	100.0	100.0

Note: This table shows overnight stays in each region as a proportion of total overnight stays in Northern Australia (domestic and international visitors).

International data was collected based on calendar years whilst domestic was collected based on financial years. The TRA data was collated at 2001 ASGC. It appears that TRA was not able to allocate some of the visitor stays to specific 2001 SLAs. As a result, BITRE was unable to allocate approximately 5 per cent of international overnight stays, and 8 per cent of domestic overnight stays, to an appropriate SLA or region when concording the data to 2006 ASGC. For comparative purposes, original TRA 2001 ASGC-based overnight stay totals have been used for Australia and the states in the tables above, to minimise the possibility of further data loss.

Source: Tourism Research Australia (2005a) and (2005b).

At the regional level, some areas within Northern Australia are particularly popular destinations for international overnight trips. In 2007, Tropical North Queensland was the third most visited area (behind Sydney and Melbourne), with 793 000 visitors, who on average stayed for seven nights in the region (Tourism Research Australia 2007a). The Whitsundays were also a popular tourist destination for international overnight visitors: 221 000 in 2007, staying an average five nights. Uluru (210 000 International visitors) and Alice Springs (165 000 International visitors) were also among the top 10 most visited regional areas in Australia, in 2007 (Tourism Research Australia 2007a).

Table 9.4.3 illustrates the number of day, overnight and international visitors in the tourism regions in Northern Australia. Although the tourism regions, as listed in the table, are not geographically identical with Northern Australia's regions, as defined in this compendium, the data illustrates the basic tourist movement in the regions. The data also illustrates the size of inbound tourism, length of stay and expenditure that tourism generates in Northern Australia.

Table 9.4.3(a) Northern Australia—domestic and international visitors by tourism regions, 2005

Tourism region	*Domestic day visitors*			
	Expenditure ($ millions)	*Number of visitors (thousands)*	*Expenditure per visitor ($)*	*Expenditure excluding airfares ($ millions)*
WA—North West Region	51	313	164	435
NT—Darwin	62	514	121	496
NT—Kakadu				
NT—Alice Springs				155
QLD—Tropical North	138	1 457	95	1 104
QLD—Outback				207
QLD—Northern	84	866	97	313
QLD—Whitsunday				646
QLD—Mackay				216

Note: Western Australia's—North West Region is approximately equivalent to the Pilbara and Kimberley regions combined; other tourist regions are selected to provide the 'best' approximation to the regions of Northern Australia; missing data replaces unreliable estimates.

Source: Tourism Research Australia (2005c).

Table 9.4.3(b) Northern Australia—domestic and international visitors by tourism regions, 2005

Tourism region	*Domestic overnight visitors*						
	Expenditure ($ millions)	*Number of visitors (thousands)*	*Visitor nights (thousands)*	*Exp. per visitor ($)*	*Exp. per night ($)*	*Av. length of stay (nights)*	*Expenditure excl. package ($ millions)*
WA—North West Region	51	513	3 842	849	113	7	48
NT—Darwin	62	562	3 085	883	161	5	70
NT—Kakadu							11
NT—Alice Springs		258	1 080	601	144	4	66
QLD—Tropical North	138	1 252	7 132	882	155	6	852
QLD—Outback		622	2 722	333	76	4	
QLD—Northern	84	826	2 912	379	107	4	71
QLD—Whitsunday		551	3 391	1173	190	6	107
QLD—Mackay		592	2 068	365	105	3	14

Note: WA—North West Region is approximately equivalent to the Pilbara and Kimberley regions combined; other tourist regions are selected to provide the 'best' approximation to the regions of Northern Australia; missing data replaces unreliable estimates.

Source: Tourism Research Australia, Travel Expenditure by Domestic and International Visitors in Australia's Regions, 2005.

Table 9.4.3(c) Northern Australia—domestic and international visitors by tourism regions, 2005

Tourism region	*International visitors*					
	Expenditure ($ millions)	*Number of visitors (thousands)*	*Visitor nights (thousands)*	*Expenditure pervisitor ($)*	*Expenditure per night ($)*	*Average length of stay nights*
WA—North West Region	51	54	828	896	58	15
NT—Darwin	62	144	1 086	488	65	8
NT—Kakadu		54	142	195	74	3
NT—Alice Springs		180	627	368	106	3
QLD— Tropical North	138	857	6 439	993	132	8
QLD—Outback						
QLD—Northern	84	141	1 142	501	62	8
QLD—Whitsunday		208	1 113	512	96	5
QLD—Mackay		51	182	268	74	4

Note: WA–North West Region is approximately equivalent to the Pilbara and Kimberley regions combined; other tourist regions are selected to provide the 'best' approximation to the regions of Northern Australia; missing data replaces unreliable estimates.

Source: Tourism Research Australia, Travel Expenditure by Domestic and International Visitors in Australia's Regions, 2005.

9.5 Service industries

Relative to Australia, service industries such as finance, insurance, property and business services employ less people in Northern Australia. In the states of Queensland and Western Australia particularly, this is commensurate with major urban service hubs being located outside northern regions. On the other hand, government administration and defence are larger employers within Northern Australia, compared with the whole of Australia (see Table 9.5.1).

As discussed in Chapter 3, at the territory level, government administration and defence (19.7 per cent) is the major source of employment within the northern regions of the Northern Territory. This is in part due to the Northern Territory's main centre of government (Darwin) being part of Northern Australia, as well as the presence of multiple military bases in the area. There are also a number of SLAs in northern regions of Queensland where employment is almost solely provided by government administration and defence(e.g. Mabuiag, Kowanyama, and Badu). Many of these areas are Indigenous communities. The high employment in government administration may be related to high levels of participation in the Community Development Employment Projects (CDEP) program, which is financed by the Australian Government.[28]

The largest provider of employment within northern Queensland (17.9 per cent) is retail and wholesale trade. This is related to local distribution of farm produce, builder supplies, and mineral, metal and chemical wholesaling which is generated in response to demand of local industries and population.

In the Kimberley, Darwin-East Arnhem, Katherine-Lower Top End, and Barkly-Central NT regions, over 75 per cent of employment by industry is generated in areas such as retail and wholesale trade, services, health and community services, and government administration and defence.

28. This is discussed in further detail in the Employment, Unemployment and Labour Force Participation section (Chapter 4).

Table 9.5.1 Northern Australia—percentage of people employed in service industries, by region, 2006

Region	*Retail and wholesale trade (per cent)*	*Accommodation, cafes and restaurants (per cent)*	*Finance, Insurance, property and business services (per cent)*	*Government administration and defence (per cent)*	*Education (per cent)*	*Health and community services (per cent)*	*Other services (per cent)*	*Other industries*	*Not stated (per cent)*
Northern Australia (WA)	12.5	5.5	7.5	7.1	7.7	9.8	5.9	42.3	1.7
Pilbara Region	12.4	4.8	8.2	4.4	6.9	6.7	3.9	51.5	1.2
Kimberley Region	12.6	6.7	6.5	11.5	9.1	14.9	9.0	27.3	2.4
Western Australia state total	18.8	4.4	13.8	5.1	7.6	10.5	5.6	33.0	1.3
								0.0	
Northern Australia (NT)	14.5	5.1	10.1	19.7	8.7	10.2	7.1	22.7	2.0
Darwin-East Arnhem Region	14.7	4.8	10.6	19.6	8.5	9.0	7.0	23.9	1.8
Katherine-Lower Top End Region	10.8	4.4	5.0	28.9	8.1	14.3	4.8	19.7	3.9
Barkly-Central NT Region	15.0	6.4	10.1	16.1	9.7	13.5	8.5	19.0	1.8
Northern Territory total	14.4	5.5	10.0	19.6	8.6	10.2	7.0	22.7	2.0
								0.0	
Northern Australia (QLD)	17.9	6.7	9.0	7.8	7.2	9.4	4.9	35.7	1.5
Mackay Region	18.6	7.0	9.0	3.4	6.5	7.5	3.8	43.0	1.3
Northern Region	17.9	4.7	9.4	9.8	8.1	11.1	5.1	32.5	1.4
Far North Region	18.0	8.5	9.3	9.3	6.9	9.6	5.8	30.9	1.7
North West Region	13.0	4.8	4.8	7.7	7.3	8.5	3.4	48.5	1.9
Longreach Region	18.1	6.0	5.7	9.4	10.9	12.0	6.0	29.8	2.1
Queensland state total	19.5	5.3	13.0	5.5	7.5	10.6	5.6	31.7	1.3
Northern Australia subtotal	16.7	6.3	9.1	10.1	7.5	9.6	5.4	33.5	1.6
Australia total	19.3	4.8	14.7	5.5	7.5	10.9	5.8	30.1	1.4

Note: This table shows the percentage of people employed by the various industries in each region. BITRE summed the data for all SLAs in order to produce state and national totals. The Other Services category includes cultural, recreational, and personal and other services. Infrastructure includes the electricity, gas and water supply, communication services, and transport and storage industries.

Source: ABS (2006d).

Data relating to population available in the online compendium

Tables

9.1 Agriculture

- Northern Australia—agricultural land use, by region, 2005–06
- Northern Australia—agricultural land use, by SLA, 2005–06
- Northern Australia—production value of agriculture, by region, 2005–06
- Northern Australia—production value of agriculture, by SLA, 2005–06
- Northern Australia—water usage, 2005–06
- Northern Australia—water usage, by SLA, 2005–06.

9.2 Business activity—entries, exits, and dynamics

- Northern Australia—net growth of the number of business establishments by type, by SLA, 2004–06
- Northern Australia—proportion of business establishments by type, and change over time, by SLA, 2004–06.

9.4 Tourism

- Northern Australia—number of overnight stays by visitor type, by SLA, 2004–05.