

APPENDIX 1: Overview of Queensland Regions

Queensland's South East

South East Queensland is comprised of 17 local government areas (including the State's capital, Brisbane) in an area of only 22,298 km², making it the most urbanised and densely populated region of Queensland. The total estimated residential population¹ in 2002 was 2,439,145 (65.7% of the State's population). In 2001, there were just over one million people employed in the region.

It is also one of the fastest growing regions in Australia; population projections anticipate growth to almost 3.2 million persons by 2016 and over 3.6 million by 2026.

As the administrative, commercial and retail centre of Queensland, the South East region has a very large number of important economic linkages. Since it is also the major trading region of the State, the transport industry plays a huge part in the region's (as well as State's and National) strategic linkages. Trading linkages extend overseas, interstate and intrastate for both the export of goods produced in the region and other regions as well as for imported goods.

Road, Rail, Port Linkages

Road, rail port linkages within the region have significant economic importance because of the density and intensity of commercial activities, and because of the convergence of transport on Brisbane. The South East has significant linkages with almost every other region in Queensland as well as northern New South Wales. In particular, as the largest market in Queensland, significant amounts of regional production are transported to the South East for consumption, sale or export. Furthermore, the workforce is increasingly transient with a growing number of commuters travelling between sub-regions for work.

A considerable amount of the South East's inputs to production are imported from outside the region. For example, meat products are sourced from the South West and Central regions – either already processed or live – for processing in one of its numerous major abattoirs, including Australia's largest at Dinmore. The South East is also a major importer of crude petroleum products, which are processed at one of the two major refineries, substantially for export interstate or overseas.

Ports

Port of Brisbane

The port of Brisbane is Queensland's largest multi-user general cargo and commodity port. It is also Australia's third busiest container port and is the fastest growing port in the country. The location of the port has promoted record trade growth as the area serviced includes South East Queensland and Northern New South Wales which comprise some of the fastest-growing regions in Australia.

Most of the port's major facilities are located at Fisherman Islands at the mouth of the Brisbane River. Other facilities are located upstream to Hamilton but these are in the process of moving to Fisherman Islands which will allow the port to better cater for the rapid trade growth and avoid urban encroachment.

Brisbane's trade consists of a range of containerised, bulk and break-bulk cargoes. Brisbane is Australia's leading beef and cotton port, handling approximately 50% of Australia's total cotton and beef exports.

¹ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA.

During the 2003-04 financial year the total tonnage through the port of Brisbane increased by over 450,000 tonnes (1.8%) to 25.1 million tonnes. This strong trade result was assisted by a moderate recovery in drought conditions in the port's hinterland region as well as strong domestic retail demand increasing imports of retail, motor vehicles and building related products. This is the eleventh consecutive year of record growth in total trade tonnage through the port. In addition, for the 20th consecutive year, the port of Brisbane recorded strong container trade growth with a significant increase of 12% to reach a record 639,570 TEUs.

Solid growth in import trade of 3.3% (451,807 tonnes) to reach 14.3 million tonnes was complemented by a small increase in exports of 0.02% (2,082 tonnes) to 10.8 million tonnes.

The strong housing approval levels in Queensland contributed to substantial increases in imports of iron and steel (up 38%), building products (up 24%), timber (up 16%) and cement (up 15%). A strong economy has also contributed to Queensland retail sales trade growing at close to double the national sales growth figures. Import of retail goods increased by 13% over 2002-03 figures. Similarly, crude oil imports rose by of 1.5% to 7.8 million tonnes and motor vehicle trade increased by 12.7%. A slight recovery of the agricultural sector is reflected by a small rise in the import of fertilisers and chemicals, up 1% to 388,081 tonnes.

The improved weather conditions in surrounding regions also contributed to a 120% increase in cereal exports. However cotton and cotton seed exports decreased by 20% and 26% respectively. Meat products have maintained record levels with meat, hides & skins and tallow having a combined increase of 67,049 tonnes.

Linkages and Growth Prospects

The port of Brisbane has sustained strong growth for the last decade, coinciding with a dramatic increase in population growth in the south-east corner of the State. It is the only port within Queensland which imports more than it exports. Like most capital city ports, most of what is imported is consumed within a 50km radius of the port and is hence distributed by road.

Nevertheless, rail linkages to the west, north and south of the port form a critical part of the ports ongoing viability. The Brisbane Multi-modal Terminal (BMT) located at the port has been in operation for almost 10 years and has cemented its position as a viable means of receiving and dispatching ship board freight. It is also beginning to capture non-imex freight as the Australia Trade Coast (of which the sea port and airport form a considerable part) gains momentum as a prime location for industry.

Whilst the Port of Brisbane is well prepared for future growth at Fisherman Islands in a maritime sense, there remains a need to "future proof" this important infrastructure by ensuring that it maintains a high level of accessibility and relevance to its catchment which is extensive and growing quickly.

A recent study on rail capacity to the port revealed:

In terms of road connectivity, the port and its tenants have benefited greatly from delivery of the first section of the Port Motorway which provides excellent access to the Gateway Arterial and thus links to both the north and south and also to the west. The recently announced duplication of the Gateway Bridge and its approaches will add dramatically to movement of freight in and out of the port.

However, it is at the eastern end of the Port Motorway (ie Lytton Road) that improvements need to be made as the road narrows appreciably, has a poor alignment for heavy vehicles and exhibits a sub-standard pavement and minimal drainage.

The Port of Brisbane is one of the major seaports along the east coast of Australia. In 2002-03, the Port of Brisbane exported \$6.4 billion of goods, the largest of any Queensland port². The largest

² ABS Trade Statistics, unpublished data

commodity exported by value was meat product (\$2.2 billion) largely to Japan (\$1 billion), the United States (\$520 million) and the Republic of Korea (\$239 million). Other major export commodities were petroleum, textile fibres and non-ferrous metals. The Brisbane International Airport also exported approximately \$600 million worth of goods in the 2002-03, with the major commodities being seafood (\$74 million), medicinal and pharmaceutical products (\$55 million) and meat products (\$51 million).

The Port of Brisbane imported over \$12.1 billion worth of goods in 2002-03, far more than any other Queensland port³. Transport equipment and machinery was the largest commodity imported (\$5.2 billion), as the Port of Brisbane imports cars and other transport vehicles for most of Queensland and a large part of New South Wales. Mineral oils (petroleum) and lubricants (\$2.4 billion) were also imported. The Brisbane International Airport was the next largest importing point in the State, with just over \$2 billion worth of imports, transport equipment and machinery once again being the largest commodity class.

Australia TradeCoast

The Australia TradeCoast area's contribution to the South East Queensland value added is estimated to have increased by \$5.4 billion between 1999/00 and 2004/04 with employment increasing to 61,000 jobs. Its contribution to gross state product is forecast to grow from \$9.8 billion in 2003/04 to \$15.2 billion in 2013/14 with employment growing from 99,000 jobs (direct and indirect full time equivalent) to 153,500 jobs in 2013/14.⁴

This level of economic growth is underpinned by construction of some of the largest and most important infrastructure works ever undertaken in South East Queensland. These include the 1.8km seaward extension of Port of Brisbane's Fisherman Island facility, a new parallel runway at Brisbane Airport and the Gateway Upgrade Project, involving duplication of the Gateway Bridge.

The Australia TradeCoast area has significant competitive advantages over Sydney and Melbourne for transport and logistics operators. This in turn has attracted industries reliant upon the transport and logistics sector, establishing it as one of Australia's major transport, logistics and industry hubs.

To operate effectively, Australia TradeCoast requires a very high standard of rail road and port access, along with other infrastructure. Consequently, Australia TradeCoast's long term planning strategy includes plans to maintain, improve and protect its road, rail and public transport access. Statutory recognition and appropriate protection of current and future transport linkages, and associated buffers, is also fundamental to enhancing its key economic role in the region.

Road, Rail, Port Infrastructure Issues

Significant factors driving economic growth and impacting on transport infrastructure in the region include:

- globalisation of the world's major economies, trading arrangements and collaborations;
- constant need for world class transport infrastructure and global supply chains to service a large part of the State;
- Rail freight capacity from the west of Brisbane, through the suburban network and thence to the Port of Brisbane is becoming a critical issue. Hence an investigation into a new freight corridor commencing at Ebenezer and extending south-east to link with the standard gauge rail line at Bromelton;

³ ABS Trade Statistics, unpublished data

⁴ (Draft Economic Impact Study, Dec 2004 Economic Associates Pty Ltd)

- integration within the regions assisted by strategic transport infrastructure development;
- growth in tourism, due to role as gateway to South East and development of the Brisbane Cruise Ship terminal; and
- establishment and expansion of industrial estates throughout the region.

Queensland's South West

The South West is a large and diverse region, administered by 28 local governments and measuring a total area of 391,451 km².

The Darling Downs sub-region includes the region's largest urban centre, Toowoomba, and exhibits relatively close settlement patterns and fairly intensive land use. In contrast, the Western sub-region is sparsely populated and land use is largely for pastoral or natural resource purposes.

The total estimated residential population⁵ is 237,554 persons (2002), of whom 88.5% live in the Darling Downs sub-region⁶. The region's population is projected to grow to 282,709 by 2026, mostly in the Darling Downs sub-region.⁷

In 2001, there were just under 100 000 persons employed in the region. Agriculture was the largest employer, followed by retail trade, health and community services and manufacturing.⁸

The economy of the South West region has an intense agricultural focus, accounting for over 20% of the region's output. Moreover, it is Queensland's largest agricultural region, contributing 30% of the State's total production. The region is also an important mining centre, providing the overwhelming majority of Queensland's natural gas, crude oil and liquefied petroleum gas production.

Road, Rail Port Linkages

Within the South West region there are strong economic linkages between the production of agricultural commodities, the processing and packaging of these commodities and the transfer to domestic or export markets. Manufacturers within the region predominantly supply products for use in other local industries, eg, metal products and heavy machinery for the mining and agriculture industries. Consequently, internal and external transportation linkage is a significant economic factor, particularly for livestock and cereal production.

The South West region also has a strong reliance on South East Queensland as a domestic marketplace for its many products, infrastructure for logistics and as a source of production inputs and support services. For example part of the livestock produced in the South West region is processed in the South East for domestic markets or for export via the Port of Brisbane. Similarly, significant quantities of cereal crops produced in the South West are also processed in the South East and exported from the Port of Brisbane with New Zealand, Japan and Hong Kong the major destinations.

Strong linkages also exist with other regional economies throughout the State, particularly for mining. For instance, natural gas is supplied to Gladstone and Rockhampton for use in industrial smelting and alumina production, to Mt Isa, for mineral processing and energy generation and to the Brisbane area, for the industrial production of fertilizers etc.

Road, Rail, Port Infrastructure Issues

⁵ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA

⁶ ABS Regional Population Growth 2002-03, cat. no. 3218.0

⁷ Queensland Government Population Projections, 2003 (medium series)

⁸ Australian Bureau of Statistics, 2001 Census data

Transport infrastructure needs are associated with:

- Maximising the potential of the mining in the region, especially given the presence of reserves of resources such as liquid petroleum gas, natural gas, coal seam methane gas and crude oil that are generally not available throughout the rest of Queensland is a key strategic development which will have significant implications for transport infrastructure and port linkages.
- In particular, the Surat Basin to Tarong Rail project will involve the construction of approximately 150 kilometres of heavy haul railway. This will provide secure, long term transport infrastructure for the supply of coal from deposits at Glen Wilga in the Western Darling Downs to the Tarong Energy Corporation's power stations in the South Burnett.
- Much of the rail infrastructure within this region was originally constructed in the early 1900's or earlier and as such is not aligned or constructed for the needs of modern efficient freight operations despite significant annual spending on track maintenance and renewal.
- This is putting pressure on the road network to accept more freight, larger and heavier vehicles and for communities to deal with the attendant externalities.
- Investigations are underway on the establishment of a major freight and logistics centre at the proposed Charlton-Wellcamp industrial estate (operational mid-2005). The development of several other industrial precincts throughout the region to meet the demand of the region and South East Queensland are also being investigated.
- The region plays a major role in the strategic transport network between Queensland and southern states. Further enhancement of this infrastructure is required to facilitate expansion of local and interstate industries. For example a proposed Toowoomba road bypass and the projected Gowrie to Grandchester rail corridor, which includes the Toowoomba range rail crossing.

Wide Bay-Burnett

The Wide Bay–Burnett region, located around 300 km north of Brisbane, encompasses 20 local government authorities in an area of 48,603 km². Key centres include Bundaberg, Maryborough and Hervey Bay.

The total estimated residential population⁹ in 2002 was 235,367. This is expected to grow swiftly to 300,000 by 2016 and 345,000 by 2026¹⁰.

In 2001, there were approximately 80,000 persons employed in the region. Retail trade is the region's largest employer followed by the agricultural sector, manufacturing sector and health and community services.¹¹

The regional economy has traditionally been based on the agriculture and manufacturing, and to a lesser extent the forestry and tourism industries. Recently, a more extensive focus on value-adding and service provision to existing industries has seen the emergence enabled such industries as food processing, timber processing, agricultural machinery maintenance, metal manufacturing and marine maintenance services.

⁹ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA

¹⁰ Queensland Government Population Projections, 2003 (medium series)

¹¹ Australian Bureau of Statistics, 2001 Census data

Road, Rail, Port Linkages

Strong economic linkages exist between the production of raw commodities to the processing and packaging of these commodities and then transfer to domestic or export markets. This is particularly true for the sugar, livestock and horticulture - raw sugar is milled then refined in the region, beef is processed at either the Gympie or Murgon abattoirs and horticultural products such as peanuts are processed and packaged. There is also an emergent mining industry in this region seeking to exploit significant reserves of minerals such as apatite and feldspar among others.

The majority of manufacturing industries within the region are predominantly involved in manufacturing products for use in other local industries, such a sugar milling equipment. One notable exception is EDI Rail which has a major facility for the design, manufacture, refurbishment, overhaul and maintenance of diesel electric locomotives, electric locomotives, electric and diesel multiple units, rail wagons, traction motors and rollingstock.

Wide Bay-Burnett has a close linkage and reliance on the South East region, as it provides a domestic marketplace for much of the region's production. Additionally, the South East region also supplies logistics, inputs and services to support industries and the population of the Wide Bay-Burnett region.

Ports

Port of Bundaberg

The port of Bundaberg is situated 19.3 kilometres downstream from the city of Bundaberg. It is 4.8 kilometres from the mouth of the Burnett River and has an entrance channel 11 kilometres in length.

There are two main wharves at the Bundaberg port. The Sir Thomas Hiley wharf is used for the shipment of bulk sugar. An approach wharf has been constructed for general cargo users which have allowed laden semi and B-double vehicles and forklifts to the Sir Thomas Hiley Wharf. The John T Fisher Wharf is used for the bulk loading of molasses.

Sugar was Bundaberg port's primary trade commodity accounting for 96% of the port's throughput. Other cargoes handled include molasses, cement and general cargo.

Total tonnage for 2003-04 was 445,478 tonnes, an increase of 3.2% over the last financial year. The major contributor to this result is an increase in sugar exports of 70,600 tonnes or 20%. However this result is still significantly below the record levels set in 1999-00 due to the continued dry seasonal conditions being experienced in surrounding regions.

Bulk molasses imports decreased by 63,000 or 83.5% over 2002-03 figures due to low domestic demand within the South Eastern Queensland region.

The port also handled its first two shipments of almost 5,000 tonnes of cement from China during the year. Over 1,000 tonnes of general cargo comprising of timber logs were also exported to the Philippines.

Prospects for growth in trade through the port are heavily leveraged to sugar production from local mills. Sustained poor prices for sugar, industry deregulation and a succession of poor harvests are all currently combining to limit development of this trade.

Prospects for new trades such as sand and woodchip, are constantly being investigated, however, none of these initiatives is likely to require the provision of additional major infrastructure at the port or require rail access to the port. Road upgrades, however, will likely be required in the short term for reasons other than port related freight. A growing beverage and small crop industry is impacting traffic in the CBD as is the seasonal movement of sugar cane from farm to mill. Some of the cane railway network has become redundant with the closure of the Fairymead Mill forcing cane onto the road network.

The Port of Bundaberg is the region's major trading port, with over \$34 million worth of overseas exports in 2002-03¹². Sugar accounted for almost all of this, major destinations being Korea, Malaysia and Japan. This port also imported \$3 million worth of goods in 2002-03¹³, largely machinery, transport equipment and live animals.

The Port of Maryborough is presently a non-trading port and is mainly used for tourism and recreation purposes.

Road, Rail and Port Infrastructure Issues

The horticultural industry (one of the region's largest industries) is presently constrained by the very high transport costs for cold chain goods in containers. Export growth will continue to be constrained unless a lower cost solution can be found. This may well be a wider problem for the horticulture industry within the State, and for other industries which rely on transport of non-bulk commodities. The terms of reference to the inquiry appear to be deficient in this regard, with an inherent bias toward bulk commodity issues.

Bundaberg Specific Issues

Bundaberg, the main population centre in the region, is experiencing particular problems in the integration of road, rail and port infrastructure.

As the Bundaberg Port is largely a sugar port, other industries rely on road and rail freight to service customers, accessing overseas export markets via the Port of Brisbane.

Demand for road and rail transport in the region is highly seasonal, peaking with the harvest of horticultural crops from October to January. During this period, local industry experiences an acute shortage of road and rail freight capacity making it difficult to meet the supply performance standards required by the major retailers, jeopardising important contracts.

Rail freight is limited in its capacity to take up the additional demand due to noise constraints associated with night loading in a largely residential area. This seasonal constraint is threatening the growth of several major local producers with the potential for such firms to relocate closer to Brisbane. This situation is serious for the regional economy as it would add to the significant unemployment problem in the area.

Other factors, such as the impact of the restructure in the sugar industry on road cane haulage, and the development of several new large industries that plan to export their product through the Port of Bundaberg, have begun to place pressure on the city's road transit routes. The need to bring forward the proposed Bundaberg By-pass Road has become evident.

Recently local transport stakeholders put forward the following concerns:

- Local businesses may not be in a position to take proper advantage of growing markets, particularly in the food & beverage sector, as a result of poor availability and poor integration of freight transport systems.
- Container freight services provided by Queensland Rail from Bundaberg operate from the main railway station in the centre of the city. This facility provides only three services per week and does not operate between 8 PM and 6 AM due to a curfew, reflecting its proximity to residential and hotel accommodation.
- This could be overcome by relocating the freight centre so that it is easily accessed by users round the clock without restriction. A possible location being the Bundaberg Industrial Park.

¹² ABS Trade Statistics, unpublished data

¹³ ABS Trade Statistics, unpublished data

- Regional horticultural output is forecast to increase substantially when the Burnett River Dam comes on stream in 2006, further exacerbating freight issues.
- The necessity for large freight vehicles such as B-doubles to travel through narrow city roads, with large, often dangerous loads is having negative impacts on their operations, and place the community at risk. This issue would be mitigated substantially by the proposed Bundaberg Bypass Road, which could be brought forward into the current Department of Main Roads planning and construction programme with the assistance of targeted AusLink funding.
- A recent study has suggested that rail to the port would not be viable in the near future in the absence of a significant bulk trade, other than sugar, emerging.

Gladstone Region

The Gladstone region incorporates five local governments in a total area of 44,887 km². Two distinct sub-regions exist, the coastal sub-region (comprising Gladstone city and Calliope and Miriam Vale shires) and the inland sub-region (Banana and Taroom shires).

The coastal sub-region, centred on the region's main urban centre of Gladstone city, is Queensland's heavy industry hub and is experiencing rapid and significant growth, drawing many billions of dollars of investment into the region. This area is poised to experience more job creation than anywhere else in Australia. In contrast, the economy of the inland sub-region is largely based on mining (coal and gas) and agriculture.

The Gladstone region's estimated resident population¹⁴ was 64,344 persons in 2002, with the coastal sub-region accounting for about three-quarters of this¹⁵. The population is expected to grow to 84,114 by 2016 and 105,417 by 2026, concentrated in the coastal sub-region.¹⁶

In 2001, there were just under 27,600 persons employed in the region. The largest employers being manufacturing, particularly metal product manufacturing, and retail trade industries, with the agriculture and construction industries also employing a significant number.¹⁷

Road, Rail and Port Linkages

The region's main industries - commodity processing, mining and agricultural production - all have significant transportation linkages, both within and outside the region. There is also a strong linkage between the coal mining and electricity generation industries within the region, with the Callide coal mine providing coal to the adjacent Callide power station via a conveyer belt and the Gladstone Power Station sourcing coal from several mines throughout the region.

A large proportion of the livestock grown in the inland sub-region is also processed locally, largely for sale on domestic markets although some is exported. Conversely, the bulk of commodities produced in the coastal sub-region (processed minerals) are largely exported to overseas markets, primarily in Asia or North America.

Coal is the largest commodity exported from the Port of Gladstone, both in value and volume terms, with almost \$1.5 billion worth of exports in 2002-03. Japan was by far the largest destination, importing around \$900 million worth of coal from the Gladstone port, with Korea the next largest importer (\$150 million). Approximately \$1 billion worth of non-ferrous metals (mainly alumina and

¹⁴ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA

¹⁵ ABS Regional Population Growth 2002-03, cat. no. 3218.0

¹⁶ Queensland Government Population Projections, 2003 (medium series)

¹⁷ Australian Bureau of Statistics, 2001 Census data

aluminium) were exported from the Gladstone port in 2002-03, with the major destinations being Japan, the United States and Korea.¹⁸

Important linkages also exist with other Queensland regions, particularly for commodity processing. Bauxite is shipped from mines near Weipa and is sourced from the South West region and the Taroom shire. The Gladstone region also relies on South East Queensland as a domestic marketplace, as the location of the headquarters of several of the region's major companies and for partnerships in terms of technology and research innovations. Additionally, several surrounding regions, particularly the Central and Wide Bay-Burnett regions, rely on the Port of Gladstone for exports.

Ports

Port of Gladstone

The port of Gladstone is located 525 kilometres north of Brisbane. It covers a distance of some 30 kilometres and offers six wharf centres with 13 berths. Queensland's largest multi-commodity port, it handled a record 59.6 million tonnes of cargo during 2003-04, a 5.1 million tonne (9.5%) increase over 2002-03 figures.

Total imports increased by 5.9% to 11.5 million tonnes while total exports increased by 10.5% to 48.1 million tonnes.

Coal exports through the port's RG Tanna Coal Terminal (RGTCT) and Barney Point Terminal continued to dominate trade, increasing its percentage share of throughput from 70.2% to 71.2% in 2003-04. A total of 42.4 million tonnes of coal was exported, an increase of 11.2%. Coal export growth for 2003-04 was a result of increased coal sales in the Asia Pacific market and continued world demand for steaming coal.

Tonnages of cargoes associated with local industries including the new Queensland Alumina Refinery, Cement Australia, Boyne Smelters Limited (BSL), Orica and Ticor all remained steady or increased during the year.

Bauxite imports from Weipa reached a record 9.6 million tonnes during the year, an increase of 6.1%. This can be attributed to the increased world demand for alumina and aluminium, which are processed by Queensland Alumina Limited's Gladstone plant. In order to meet growing market demand Comalco's Alumina Refinery will come on-line in November 2004. Exports of alumina and aluminium from the port increased 6.9% and 1.6% respectively.

Cement and cement clinker exports achieved an improved throughput of 1.3 million tonnes, an increase of 4.7%. However petroleum product imports decreased slightly by 1% due to the increased road transport of the product. Exports of woodchip, magnesia, calcite and magnesite fluctuated slightly under normal market conditions.

Continued drought conditions in western Central Queensland affected trade of agricultural products from the port. While grain exports increased marginally by 2.2% (reaching over 126,000 tonnes), there were no cottonseed or sunflower seed exports through the port during the year.

From 1 July 2004 the port of Gladstone merged with the port of Rockhampton to form the new Central Queensland Ports Authority. The merger will allow for better management and administration of the Central Queensland region's booming port industry, allowing for the efficient and effective management of the rapid growth in exports forecast to occur from the region.

The Gladstone region is a growing area for major industrial development projects. Over recent years there have been proposals for several major industrial developments to be located there but few have materialised. The new Comalco alumina refinery being a notable exception.

¹⁸ ABS Trade Statistics, unpublished data

Demand for port infrastructure over the past five years at Gladstone has been insatiable, with major capacity expansions at the RG Tanna coal terminal and the construction of new wharves at Fisherman's Landing to cater for industry development at the northern end of the harbour. A transport corridor from the wharf at Fisherman's landing to the immediate industrial land holdings of the Department of State Development has been secured to allow for multi-user road rail, pipeline and conveyor access to the port.

Continued expansion of the coal terminal and Fisherman's Landing facilities pose the major challenge over the next five years especially if the proposed Coke plant at Stanwell goes ahead along with stage 2 of the alumina refinery.

Road and rail access to the port is coming under increasing pressure as a result of the ports location in the focal point of the city and as a result of industrial and population growth.

The recent opening of a new port access road has done much to improve heavy vehicle access to some sections of the port (Port Central), however, there are now growing community calls for extending this road to ease congestion and improve safety for all road users.

The large majority of the regions exports are shipped through the Port of Gladstone, one of the largest multi-commodity ports in Queensland. It handles around 35% of Queensland's exports by volume, with over \$3.6 billion worth of overseas exports departing from the port in 2002-03¹⁹. Major export commodities include coal, alumina, aluminium, cement, grains, magnesia and calcite. The Port also receives significant imports (\$200 million in 2002-03)²⁰ - largely bauxite, caustic soda and petroleum products, all inputs to local industrial operations.

Road, Rail, Port Infrastructure Issues

Key transport infrastructure issues include:

- The region has a significant amount of land available to cater for growth in industrial development. The most significant industrial site is the 21,000 hectare Gladstone State Development Area, 15 kilometres northwest of Gladstone, established by the Queensland Government to provide land suitable for large scale industrial development close to the Port. The Aldoga Aluminium Smelter is presently proposing to construct a world-class smelter on the site and there are several other projects under planning either for or adjacent to the site. Furthermore, the Gladstone Port Authority has undertaken land reclamation for future industry expansion and there is an opportunity to develop an industrial estate adjacent to the Callide Power Station that may specialise in industrial reuse.
- The proposed \$167 million recently completed \$80 million expansions of the R G Tanna Coal Terminal at the Gladstone Port Authority has increased the capacity of this key piece of regional infrastructure, whilst also ensuring that the port will continue to meet the demands of the region's growing coal industry and assist in continuing to attract major projects to the region.

Queensland's Central Region

The Central region is very large and diverse, stretching from the coast to the western border of the State, encompassing 19 local governments and one Aboriginal Council in an area of 414,181 km² (23.9% of the State). The main urban centres are Rockhampton, Emerald and Longreach.

The Central region's estimated resident population²¹ was 138,420 in 2002, with the Coastal sub-region accounting for about three quarters of the region's residents; the Highlands around twenty percent and

¹⁹ ABS Trade Statistics, unpublished data

²⁰ ABS Trade Statistics, unpublished data

²¹ This varies from the Census count. It only measures usual residents and does not include visitors or workers from outside the LGA.

Central West around five percent²². The population is projected to will rise to 152,025 by 2016 and 161,648 by 2026, largely in the coastal sub-region.

In 2001, there were approximately 58,000 persons employed in the region. Retail trade and agriculture industries were the region's largest employers, followed by education, health and community services and construction.²³

The three sub-regions that comprise the Central region have differing economic structures. The Coast sub-region is a more diverse, service-orientated economy focussing on meat processing, electricity generation, government administration and education and health services. In contrast, the Highlands sub-region is dominated by coal mining and livestock production and the Central West sub-region is essentially a rural agricultural area, specialising in beef, sheep and goat farming.

The region has an extensive natural resources base including Bowen Basin coal reserves, mineral and resource deposits such as magnesite, gold, nickel, salt, mineral sands, oil shale, gemstones, limestone, gypsum, sandstone and granite.

Future growth in the economy of the Central region largely centres on the sustainability and expansion of the mining and agricultural industries, along with attracting large-scale mineral processing operations.

Road, Rail, Port Linkages

One of the most significant intra-regional linkages is due to the reliance by the Highlands and Central West sub-regions on the Central Coast sub-region for the provision of goods and services and as the administrative centre of the region.

The region's main industries of mining, agriculture and electricity generation are supported by the local construction, manufacturing, retail and business services sectors. Rail and road services supply the bulk of associated transport needs including transport of goods to markets and delivering inputs to the industries.

The coal mining industry relies heavily on Queensland Rail to transport coal for use in the major power stations at Stanwell, Gladstone and Callide or either to the Port of Gladstone or Port of Mackay for export. Additionally, there is also a significant linkage in the movement of cattle to abattoirs situated in the Central or Gladstone regions. The processed meat is then transported to domestic markets or exported from the Port of Rockhampton.

The Central region relies heavily on the Port of Gladstone as the principal port for export and lodgement for much of the Central region's production and inputs. The Central region also has a substantial linkage with the South East region as it provides a domestic marketplace for much of its production.

Efficient supply chains/freight corridors and transport infrastructure, particularly the corridor to the Port of Gladstone is vital to future growth in the region.

Ports

Port of Rockhampton

The port of Rockhampton (Port Alma) is a natural deep-water port located approximately 60 kilometres by road from Rockhampton. Serving the central Queensland region, the port is capable of

²² ABS Regional Population Growth 2002-03, cat. no. 3218.0

²³ Australian Bureau of Statistics, 2001 Census data

handling ships up to 180 metres in length with a 10-metre draft. It is also strategically located for the handling of difficult and dangerous cargoes.

Throughput for 2003-04 was 68,561 tonnes, a reduction of 86,310 tonnes from 2003-03 figures.

Most of this fall was due to the cessation of salt exports.

Combined tallow and frozen beef exports remained relatively stable over the 2002-03 figures as the Teys Bros abattoir remained closed for 2003-04. However the abattoir re-commenced operations in early 2004-05 and beef and tallow exports are expected to improve in the near future.

Ammonium nitrate and explosives fell slightly from 31,078 tonnes to 29,058 tonnes, and scrap metal exports decreased from 14,484 tonnes to 4,033 tonnes. No further shipments of scrap metal are expected through the port.

The merger of the port of Rockhampton with the port of Gladstone under the Central Queensland Ports Authority from 1 July 2004 will secure the port's future as a critical element of the State's port network.

Port Alma has in recent years seen a major deterioration in its historical trading patterns with economic and climatic conditions combining to decimate trade throughput in core trades such as explosives, beef, scrap and salt. There is no apparent need to consider port expansion at this time or to consider upgrading road access. The remoteness of this port, which once worked in its favour as a prime location for the handling of dangerous goods, has now left it vulnerable to Gladstone's continuing ascendancy as a trading port.

The only seaport located in the Central region is the Port Alma seaport, which is administered by the Rockhampton Port Authority and services local salt and meat industries. Large scale commercial trading needs are usually met by the Port of Gladstone.

Port Alma exported just over \$80 million of goods in 2002-03, with meat products accounting for almost \$65 million of this. The USA (\$60 million) was the main export destination for meat products, with Canada and Mexico receiving the remainder²⁴. The port also recorded \$1.5 million worth of imports in 2002-03, with ammonium nitrate accounting for the majority²⁵.

Road, Rail, Port Infrastructure Issues

Transport infrastructure issues include:

- The Central Queensland coalfields are expected to continue expanding, with increases in technology assisting extraction processes and the development of several projects, such as the under construction Grasree Coal Mining Project, the committed Rolleston, Clermont and Curragh North Coal Mining Projects and the under investigation Togara North, Minerva and Girrah Coal Mining Projects. These projects will create hundreds of jobs in the region as well as injecting substantial amounts of investment and export earnings. Further rail infrastructure may be required.
- Considerable efficiencies could be gained by developing a transport corridor linking the industrial areas in and around Central Queensland, namely Yaamba, Stanwell, Rockhampton and Gladstone, to improve supply chain efficiencies and also attract further industrial investment.
- An efficient refrigerated transport system is required to support growth of the horticulture industry in the Highlands sub-region.

²⁴ ABS Trade Statistics, unpublished data

²⁵ ABS Trade Statistics, unpublished data

- The Stanwell Energy Park (a 3500 hectare industrial precinct) is being developed around the Stanwell Power Station. Focusing on energy-dependent industries, the Park offers access to first rate infrastructure, low-cost reliable energy, large sites, abundant water, convenient transportation and a major urban centre (Rockhampton) that provides a high-quality workforce and lifestyle.

Mackay Region

The Mackay region consists of the eight local government areas of Mackay city and the shires of Whitsunday, Mirani, Sarina, Bowen, Nebo, Belyando and Broadsound in an area of 90,340 km².

The region had a total estimated resident population²⁶ of 139,790 in 2002, of which the central sub-region accounted for 73.7%²⁷. The population is expected to grow to 163 827 and 180 974 persons by 2016 and 2026 respectively.²⁸

In 2001, there were approximately 60,000 persons employed in the region. Retail trade, agriculture and coal mining were the largest employers, with the accommodation, café and restaurants, construction and education industries also significant employers.²⁹

The regional economy is largely built around mining, sugar, transport, food processing and tourism. The mining industry produces over 25% of the region's output, predominantly coal. Food processing is the largest manufacturing industry - mainly sugar refining and meat processing.

Road, Rail, Port Linkages

The local transport industry provides road, rail and water services to the mining, sugar and agriculture industries, plus tourism, for which the majority of activity is around the Whitsunday Islands.

The mining industry, particularly coal, has significant transport linkages within the region, relying primarily on rail to move coal to either power stations in the Central region or to Hay Point and Abbot Point seaports for exporting. Likewise, sugarcane is harvested and transported to one of six mills in the region for crushing and refining, before being exported from the Mackay seaport. Grains and some meat products are also transported to this seaport for export.

Ports

Port of Mackay

The Mackay Port Authority operates the seaport and airport in Mackay. The seaport is situated in a breakwater harbour to the north of the city of Mackay. Its principal export is sugar and its major commodity imports are petroleum, bulk fertilisers and iron concentrates (magnetite). The Mackay Airport is the major gateway for tourists visiting the Whitsunday islands and is also a major servicing centre for the mineral rich Bowen Basin.

Total throughput for 2003-04 decreased by 68,900 tonnes (3.5%) reaching 1,925,842 tonnes. Imports reached 749,302 tonnes (up 13.4% or 88,545 tonnes) while exports were 1,176,540 tonnes (down 11.8% or 157,465 tonnes).

An 8.4% (41,000 tonne) increase in petroleum product trade led the way for the improved import performance. This can be attributed mainly to demand for fuel continuing to grow in the mineral rich Bowen Basin.

²⁶ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA

²⁷ ABS Regional Population Growth 2002-03, cat. no. 3218.0

²⁸ Queensland Government Population Projections, 2003 (medium series)

²⁹ Australian Bureau of Statistics, 2001 Census data

In addition magnetite (iron concentrate) imports more than doubled to reach almost 87,000 tonnes.

Raw sugar exports declined by 29.2% (269,694 tonnes) to only 652,500 tonnes due to another poor growing season brought on by drought in the Mackay district. However refined sugar exports increased by 9.0% (24,360 tonnes). Grain exports also more than doubled during the financial year, reaching 127,467 tonnes from only 62,065 tonnes in 2002-03, although this is still significantly below the record of almost 400,000 in 2000 01.

The port of Mackay is the most volatile of all Queensland ports in terms of trade volumes as it is heavily reliant on both grain and sugar for its export performance.

Mackay has sufficient infrastructure at the port to meet foreseeable demand, however, moves are currently afoot to secure a new road corridor to the port to ease concerns about the number of heavy vehicles using the existing corridor which is also carrying an increasing amount of local passenger traffic due to a successful residential, recreational and marina development adjacent to the port.

Port of Hay Point

Located south of Mackay and situated in the Sarina Shire, the port of Hay Point incorporates two terminals, the Hay Point Services Coal Terminal (HPS) and the Dalrymple Bay Coal Terminal (DBCT). HPS is owned operated by BHP Mitsubishi Alliance.

A private company, Prime Infrastructure (headed by international investment bank Babcock and Brown Pty Ltd), leases the DBCT from the Queensland government. The lease, which commenced in September 2001, involves DBCT being leased for 50 years, with an option for extending for another 49 years. PCQ continues to have responsibility as the port authority at the port.

Together, the two terminals serve the coal mines of central Queensland. The mines are linked to the port terminals through an integrated rail-port network.

Total throughput at the port was a record 77.546 million tonnes which represents an increase of 3.85% (2.87 million tonnes) due to new records being established at HPS (33.95 million tonnes up by 2.17 million tonnes from the previous year) and DBCT (43.59 million tonnes up 0.9 million tonnes from the previous year).

During the year 965 bulk carriers visited the port.

In recent months, DBCT has been the focus of significant media attention and may well have been the catalyst for this current enquiry.

The recent expansion of the Dalrymple Bay Coal Terminal at Hay Point, has further enhanced the transport infrastructure of the region and provides opportunities for both the transport and mining industries within the region. Further expansion is expected following the recent Queensland Competition Council price determination.

The Queensland Government is fast tracking expansion of Abbott Point and the 78 kilometre Northern Missing Link between the Goonyella and Newlands rail systems with \$25 million of feasibility studies, design and approval works.

Northern Region

The Northern region is comprised of seven local government areas and one aboriginal council in a total area of 83,121 km². The region's economy is the most diverse outside of South East Queensland and has adopted an important role as an administrative centre and transportation hub for the northern and western parts of Queensland. Major population centres include Townsville, Thuringowa, Ingham and Charters Towers.

The region's total estimated residential population³⁰ was 205,033 in 2002, three-quarters of whom resided in the Greater Townsville sub-region³¹. The population will grow to approximately 247,000 and 261,000 persons by 2016 and 2021 respectively, largely in the greater Townsville sub-region.

In 2001, there were almost 90,000 persons employed in the Northern region. The retail trade and the health and community services industries were the region's largest employers, with government administration and defence as well as the education industries also significant employers³².

Road, Rail, Port Linkages

The Greater Townsville sub-region is a strategic transport infrastructure hub, including a major trading port with bulk cargo facilities (the Port of Townsville), Townsville International Airport (used by the defence force) and extensive road and rail systems linking northern and western Queensland (including links to extensive mineral deposits in the North West Minerals Province, the Carpentaria Minerals Province and smaller deposits near Charters Towers). There is also a sugar port at Lucinda and four smaller airports at Ayr, Charters Towers and Ingham.

The major economic linkages within the Northern region are principally involved with the production processes, inputs and services to the region's main industries of commodity processing, agricultural production, mining and defence. All of these significant industries have major rail, road and port transport linkages, both within and outside the region. The Greater Townsville sub-region has more extensive and higher-order linkages involved with its major industrial and transport operations and as the administrative and urban centre of the region. In contrast, the Outer sub-region has linkages more reflective of its agricultural and mining focus.

QNI's nickel and cobalt refinery at Yabulu has established some unique linkages external to the region - all its inputs are from outside the region. It sources lateritic ore from New Caledonia, Indonesia and the Philippines and then exports its nickel and cobalt to Asia, USA, Europe and South Africa. Similarly, Xstrata's copper refinery and Sun Metals zinc refinery do not source their main inputs from within the region, but from the North West region and, once again, the majority of production is exported. These linkages, centred on the mineral processing industry, highlight how the Northern region's location has been maximised by this industry and the development of appropriate infrastructure increases economies of scale for major industry.

A large amount of sugar, meat products and livestock is exported from the Northern region and while some of this is produced within the region, significant amounts are also sourced from the Central, Mackay, North West and Far North regions, either for processing or export.

Ports

Port of Townsville

The port of Townsville is a breakwater harbour located at the mouth of Ross Creek near the Townsville City centre. The port, managed by the Townsville Port Authority, has grown to be Queensland's third largest industrial port.

The 2003-04 financial year saw Townsville celebrate its seventeenth consecutive year of record throughput, with trade reaching in excess of 10.1 million tonnes. Imports increased by 3.2% and exports by 4.1%, contributing to an overall increase of 3.6% (176,406 tonnes) and the port authority expects this pattern to continue for the coming financial year.

³⁰ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA.

³¹ ABS Regional Population Growth 2002-03, cat. no. 3218.0

³² Australian Bureau of Statistics, 2001 Census data

Nickel Ore continued to be the port's primary commodity with 3.87 million tonnes imported during the year. This is another record for the product, which increased by 4.2% over 2002-03 figures, due mainly to a high demand for nickel and cobalt products produced at the Yabulu Plant.

Sugar was again the port's main export commodity with 1,475,730 tonnes being shipped in 2003-04. This is an increase of 219,550 tonnes (17.5%) on the previous financial year. This increase can in part be attributed to the completion of a third sugar shed at the port in December 2002. The shed has a 400,000 tonne capacity, and accepted its first raw sugar supply in September 2003 bound for Japan.

General Oil imports also increased significantly during the year by 10.8% to over 977,000 tonnes due mainly to increased demand in the mineral industries sector in the region.

However live cattle exports from the port decreased significantly by almost 90% (148,375 head) to just over 16,800 head this financial year. Higher Australian cattle prices due to an appreciation of the Australian dollar and strong competition from lower priced buffalo meat in South East Asian markets are the main contributors to this result.

WMC's High Analysis Fertiliser exports were also affected by the high value of the Australian dollar with exports decreasing by 5.5% to 788,226 tonnes.

Trade in other mineral substances through the port remained steady during the year. Zinc exports increased by 4.4% to over 506,000 tonnes and lead exports remained steady at approximately 488,000 tonnes. This can be attributed to a new export customer at the port, Kagara Zinc Ltd, which has a central processing facility at Mt Garnet.

While copper exports decreased by 11.2% during the year, exports are expected to increase in coming years as Birla Mineral Resources Pty Ltd, also a new export customer at the port, plans to produce significant copper concentrates from the Mt Gordon copper mine for export to the company's refinery in India.

Like Mackay, the Port of Townsville is also suffering from residential encroachment and a road route to the port which necessitates traversing through residential precincts of the city. Port infrastructure is soon to be bolstered by the development of a new wharf to cater for cruise and military vessels. This will alleviate any pressure on the existing trading berths to a point where congestion is not a likely issue.

Road access to the port is planned to be improved via the Townsville Port Access Gateway Project, which entails construction of a new road from the Pacific Highway south of Townsville to the port, thus avoiding the urban footprint.

The need for this road is becoming increasingly apparent as the live cattle trade in north Queensland begins to regenerate and the development of new mineral deposits far removed from existing rail lines moves apace.

Port of Lucinda

Located approximately 100 kilometres north of Townsville, the port of Lucinda is a dedicated raw sugar port, handling the export of raw sugar from the Ingham and Cardwell sugar growing districts, mainly from the Victoria and Macknade sugar mills. Lucinda Bulk Sugar Terminal, a subsidiary of Queensland Sugar Limited, operates the terminal.

The port has one of the world's longest jetties with a length of 5.6 kilometres. It takes 22 minutes for the sugar to be transferred by conveyor to the offshore berth. The berth can take the largest ships in the trade, including fully loaded Panamax class vessels.

General Cargo is managed through a barge ramp for transport to nearby island communities.

Despite an increase of 23.65% in general cargoes traded, the Port of Lucinda saw a downturn in total throughput of 12.32%. A 12.5% decrease in sugar exports to 522,893 contributed in no small part to this result. The port was visited by 15 sugar ships.

There is no rail access to the port of Lucinda despite its proximity to the NCL. All sugar and general cargo is trucked into the port along well established and suitable roads.

Road, Rail, Port Infrastructure Issues

Significant issues which impact on the regions transport infrastructure needs include:

- Urban encroachment and associated amenity issues are major obstacles for operational expansion and development. There is a particular need to identify and secure road and rail transport corridors and supply chains for both inputs and outputs into the major manufacturing operations.
- Two major projects, currently under study, are likely to significantly increase the mineral processing industry. The Sun Metals Stage 2 project, aims to double the capacity of the plant to make it the largest zinc refinery in the world, and the QNI Yabulu Extension project (YEP), a doubling of the nickel refinery's production through sourcing new feed material from the Ravensthorpe Nickel project in Western Australia.
- Expansion of the tourism sector through more and longer stays by international cruise ships and the development of new tourism attractions and infrastructure, including the Townsville Cruise Ship Terminal project.
- The region's transport and logistics industry should expand considerably, following the development of the Townsville State Development Area, extension of the Port of Townsville and new industrial projects and industries demanding increased supply chain services.
- The Townsville State Development Area covers an area of approximately 1,000 hectares over the former Stuart Industrial area and port access corridor. The TSDA project aims to promote the Greater Townsville area and provide necessary infrastructure for the future attraction of major projects. (See below).
- A component of the TSDA is the Townsville Port Access Corridor project, which aims to provide environmentally sustainable and socially acceptable transport access to and from the Port of Townsville and the TSDA industrial sites. (See below).
- Given the increasing demands being placed on the Port of Townsville, a development plan has been compiled with an action plan for redeveloping significant parts of the Port in the future, including the Port Access Corridor, a marine industries precinct on the Ross River, the establishment of cruise ship terminals and expansion of rail capacity within the Port.

Townsville State Development Area and the Townsville Port Access Corridor

The Queensland Government is committed to positioning Townsville as an industrial hub of international significance. To this end it has commissioned independent consultants to identify the competitive industrial strengths that the Townsville Region and Port has in the global market. Significantly, the Townsville area has the potential for value adding industry including alumina refining and aluminium smelting, chemical production, ferro and special alloy manufacture and silicon metal production, taking advantage of the North-West Minerals Province assets including zinc, copper, nickel and cobalt. The availability of efficient and effective freight modes, modal transfers and routes from the North West Minerals Province to the Port of Townsville has also been examined

Two major projects have been developed to pursue this strategy – development of the Townsville State Development Area and the Townsville Port Access Corridor. The Projects will provide:

- Industrial hubs suitable for large scale, resource processing industry, downstream processing industries, service industries and support services which enable 24 hour, 365 day per annum operations (this will allow better exploitation of the mineral reserves of the North West region);
- An infrastructure and materials transportation and services corridor precinct to deliver feedstock and materials required for processing and product delivery;
- Dedicated port access to benefit existing and future industries, including access for existing and future heavy vehicles from the Flinders and Bruce Highways.
- A development assessment and decision making system coordinated and administered by one Government entity viz., the Coordinator General;
- An integrated approach to planning for the integration of road and rail other linear infrastructure networks to connect with the Port of Townsville, through the State Development Area; and
- A holistic approach by the Queensland Government, through the Coordinator General, in the consideration of environmental and community values of significance to the State and Commonwealth, in the form of a staged program approach to the preparation of studies, which identify industrial development and infrastructure provision opportunities, environmental and health value identification.

The projects are expected to generate:

- Investment in excess of \$10B;
- Direct Industry employment of an additional 2,500 persons;
- Increase in regional employment of 10,000 persons; and
- Contribution of over \$2B to the State Gross Product

The Projects' studies and stakeholder consultation programs are being funded by the Queensland Government.

Queensland's Far North Region

The Far North region comprises eleven local government areas in a total area of 194,166 km². It is commonly divided into two distinct economic sub-regions – Cairns and Cape York Peninsula.

The natural attributes of the region, along with its tropical climate make it one of Australia's major tourist destinations, particularly the Cairns sub-region. The region includes the Great Barrier Reef and the Wet Tropics Rainforest, both World Heritage listed.

The two sub-regions of the Far North region have quite distinct economies. The Cairns sub-region is based around tourism and service industries, along with the production of sugarcane, fruit and other agricultural products. In contrast, economic production in the Cape York Peninsula sub-region is based upon mining and beef production.

The estimated residential population³³ of the Far North region was 213,669 in 2002, with the Cairns sub-region accounting for around 90% of this³⁴. The region's population is expected to grow to 245,318 and 274,602 persons by 2016 and 2021 respectively,³⁵ largely in the Cairns area.

³³ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA.

³⁴ ABS Regional Population Growth 2002-03, cat. no. 3218.0

In 2001, just over 90,000 persons were employed in the region. Retail trade, accommodation, cafes and restaurants and government administration and defence were the region's largest employers. The health and community services, property and business services and the agriculture, forestry and fishing industries were also significant employers³⁶.

Of particular note are the region's

- growing and prominent tourism industry based on the region's many high-quality attractions; and
- extensive mineral deposits such as bauxite (around Weipa), copper, zinc, gold, tin, silver and gemstones, supported by established facilities for mining activities and quarries at Redlynch, Tichum Creek and Coorumba Road.

Road, Rail and Port Linkages

The Cairns sub-region is a major supplier of goods and services to the Cape York Peninsula sub-region. The region's main industries of tourism, agriculture, mining and fishing are supported by the construction, manufacturing, retail and business services sectors in the region. These industries have significant sea, road and rail linkages utilised to transport goods to markets or to import inputs to the industries. Importantly, the region is emerging as a hub for exporting to Asian-Pacific nations, particularly through growth in live cattle exports.

There is a strong almost symbiotic linkage between the Comalco bauxite mine at Weipa and the alumina refinery plants in the Gladstone region, with bauxite transported by sea from the Weipa Port to the Port of Gladstone as input to their production processes.

Ports

Port of Cairns

The Cairns Ports Authority manages a multi-purpose regional seaport and the sixth busiest airport in Australia, supporting a diverse range of industries with a strong focus on the tourist industry. It is also home to one of Australia's largest fishing fleets and has an extensive shipbuilding and repair industry.

The port of Cairns is located in the sheltered natural harbour of Trinity Inlet. The major cargoes handled by the port include sugar, molasses, petroleum and fertiliser. Cairns Seaport also provides essential infrastructure for the marine tourism industry in the region and is a major conduit for freight to and from the various communities in the Torres Strait as well as mining operations in New Guinea.

Total trade handled by Cairns seaport for 2003-04 was 1,164,282 tonnes, a decrease of 2.9% (35,275 tonnes) on 2002-03 figures.

Total imports grew by 7.0% (42,558 tonnes) and reached 650,975 tonnes due mainly to strong petroleum imports. There was a 7.7% rise in petroleum imports to 542,638 tonnes, reflecting the overall health of the region's economy. However this was offset by a 13.7% decrease in total exports to just over 513,000 tonnes. The main contributor to this result was a decline of 19.4% in sugar exports to 281,158 tonnes due to adverse seasonal conditions and low world sugar prices.

Cairns Seaport also handled 11,728 movements of scheduled ferry and tourist vessels, up 10.1% from 2002-03. International cruise ship visits to Cairns also increased by one during the year to 18 vessels.

The Port of Cairns is usefully divided into two sections; Cityport and Working Port. Cityport, as the name suggests is host to a number of retail residential and tourist related activities revolving around

³⁵ Queensland Government Population Projections, 2003 (medium series), note that 2026 figures for Aboriginal Councils are unavailable

³⁶ Australian Bureau of Statistics, 2001 Census data

the Cairns Marina. The working port serves the sugar and petroleum trades and is an important trawler base and trade hub for New Guinea, the Torres Strait and Pacific islands.

The main mill using Cairns sugar terminal is Mossman located approximately 100 km north of Cairns by road. The crushing season sees a lot of heavy vehicles towing bins laden with raw sugar traverse the inner city on their way to the port. This is a twenty-four-seven operation. However, sugar volumes have fallen in recent years and along with this any calls for new road infrastructure to better manage this freight.

Rail volumes to Portsmith are small in terms of the total freight carried on the North Coast Line and there is little demand for a more efficient rail/port interface.

Port of Mourilyan

The port of Mourilyan is located 90 kilometres south of Cairns. It is essentially dedicated to the export of sugar and molasses but since 1995 it has also been exporting live cattle. The sugar is grown in the Innisfail, Babinda and Atherton districts, with sugar sourced from the South Johnstone, Mourilyan, Tully and Babinda mills.

Mourilyan Bulk Sugar Terminal, a subsidiary of Queensland Sugar Limited, operates the terminal. Australian Molasses Trading Pty Ltd undertakes the molasses exports through the port.

In the 2003-04 year there were slight increases in molasses (up 1.47% or 1,286 tonnes) and livestock (up 21.65% by 300 head).

A decrease of 1.84% or 12,819 tonnes of sugar, contributed to a slight downturn in total throughput for the 2003-04 year by 1.43% or 11,233 tonnes.

To facilitate these results the port handled 32 ships.

Mourilyan is principally a sugar port but has, in recent years become a recieval point for fertilizer and more recently become an export facility for live cattle. The terrain surrounding the port means that rail connection is not an option, hence all freight is trucked to the port.

A new proposal to locate some stock yards at the eastern end of the port to facilitate live export of cattle will probably lead to calls for road access to be upgraded to handle longer and heavier vehicles such as road trains to allow for the efficient consolidation of cattle shipments. Apart from this, there is no apparent need for additional port capacity or connective infrastructure.

Ports Administered by the Ports Corporation of Queensland

The Ports Corporation of Queensland (PCQ) is a multi-port authority responsible for managing and developing ports which are primarily dedicated to the handling of bulk export commodities, as well as two community ports which service the needs of local communities. These ports include:

Abbot Point	■	Mourilyan	■
Cape Flattery	■	Quintell Beach	▲
Hay Point	■	Thursday Island	▲

Karumba	■	Weipa	■
Lucinda	■	Skardon River	■
<i>Legend:</i>			
Trading ports	■	community ports	▲

Its ports handle bulk shipments of coal, bauxite, zinc, silica sand, sugar and molasses, in addition to live cattle and general cargo. Coal is by far the main commodity handled, but each port and each commodity is important in its own right.

PCQ is Australia's largest port authority by tonnage throughput and more than half of Queensland's exports, by tonnage, pass through PCQ's ports. The value of these exports was about \$6.9 billion³⁷ in 2003-04 and was largely driven by mineral exports.

PCQ also manages the community ports of Thursday Island and Quintell Beach for the benefit of the regional communities.

PCQ ports' overall trade record from the previous year was bettered by about 2.93% to reach a new record of 107.7 million tonnes. In 2003-04 Hay Point continues to hold the title of Australia largest bulk coal export port as well as one of the world's largest bulk coal export ports.

Port of Abbot Point

The port of Abbot Point is Australia's most northerly coal port, located approximately 25 kilometres north of Bowen. It consists of one coal terminal and an offshore berth serviced by a conveyor and shiploader. The port is owned by Ports Corporation of Queensland (PCQ) and managed by Abbot Point Bulkcoal Pty Ltd, which is part of the Newlands-Collinsville-Abbot Point (NCA) Project. The NCA Project is 25% owned by Itochu Coal Resources Australia Pty Ltd and 75% by Xstrata.

Coal is delivered to the port by rail from the Newlands and Collinsville mines which are located on the northern edge of the Bowen Basin coalfields. Two tugs based in Bowen service the port.

A slight downturn of 5.45% from last year's record showed a total throughput of 12,094,893 tonnes for 2003-04. The port handled 121 ships during the financial year to achieve these results.

If trade volumes continue to grow, capacity at the terminal will become an issue and PCQ will work with the operator to look at options to satisfy capacity needs.

The Queensland Government has recently announced commencement of a \$25M feasibility study into connecting Abbot Point to the Goonyella Rail System and expanding port capacity.

Other ports in the region include the Mourilyan Port, with exports of \$147 million in 2002-03, the Weipa Port, recording \$96 million worth of exports in the same year, and the Thursday Island Port which has limited overseas trading capacity. Additionally, the Cairns airport exported overseas almost \$105 million worth of goods in 2002-2003.

Road, Rail, Port Infrastructure Issues

Transport related infrastructure issues include:

³⁷ Source: Ports Corporation of Queensland Annual Report 2003/04

- Expansion of the region's mining industry, particularly in the Cape York Peninsula sub-region. A spate of recent projects such as Mt Garnet Zinc, Skardon River Kaolin, Collingwood Tin and the under study Kendall River Kaolin provide the region with several challenges in ensuring the long-term sustainability and provision of infrastructure. Additionally, the optimisation of bauxite extraction processes in alignment with global trends in the light metals industry and the Project NeWeipa expansion of the Comalco bauxite mine at Weipa (the largest in the world) will increase the value of the mine.
- The region's tourism industry should continue to grow as further tourism infrastructure is developed. For example, the recently completed Cityport project which redeveloped the Cairns waterfront and port precinct has improved access to the Great Barrier Reef.
- Queensland's Cruise Shipping Plan includes investigations into the infrastructure required for cruise shipping out of Cairns.
- The Torres Strait Major Infrastructure Project includes development of road infrastructure for remote communities in the region, to provide better access to southern markets and attract investment to the Torres Strait Islands.

Queensland's North West Region

The North West region encompasses eleven local governments and two independent Aboriginal councils in a total area of 445,091 km². The region borders the Northern Territory to the west and the Gulf of Carpentaria to the north. Geographically, most of the region's economic activity centres upon Mt Isa. Other significant communities are Cloncurry and Karumba.

The North West region's estimated resident population³⁸ was 37,813 persons in 2002³⁹. The region's population is forecast to steadily decline to around 34,300 persons in 2021.

In 2001, there were just over 17,000 persons employed in the region, agriculture and metal ore mining being the largest employers, followed by government administration and defence and retail trade industries.⁴⁰

Features of particular note include:

- extensive base metal reserves, including 28% of the world's known zinc and lead reserves and one of the world's largest zinc and lead mines;
- the growing importance of the Port of Karumba, as a gateway for the export of zinc, lead, live animals (mainly cattle) and general cargo and as a service centre for the commercial fishing industry of the region, enhances overall regional capability and will assist in future industry attraction to the region. One of the benefits of the Port is the ability for coastal and international shipping to bypass the sensitive regions of the Great Barrier Reef.
- The significance of road and rail transport, particularly the major highway and rail corridor between Mt Isa and Townsville and other major transport routes, including the Landsborough Highway (Matilda Highway) to Brisbane.

The economy of the North West region is primarily based on the mining and agricultural industries. Metal ore mining (mostly zinc, lead, gold, silver and uranium) directly provides around half of the region's output and is also responsible for many indirect effects throughout the region. Much of the existing infrastructure such as transport, power and telecommunications, was developed by and for the

³⁸ This varies from the Census count in that it measures usual residents and does not include visitors or workers from outside the LGA.

³⁹ ABS Regional Population Growth 2002-03, cat. no. 3218.0

⁴⁰ ABS Census data 2001

mining industry, and while this has allowed the development of reasonably-sized services and residential sectors, much of the region remains reliant on the mining industry for employment and income.

Mining and related activities are expected to continue playing a dominant role in the region's economy for at least the medium term, although other activities such as live cattle export and tourism are playing an increasing role in diversifying the region's economy.

Road, Rail, Port Linkages

The Port of Karumba relies on slurry pipeline and road to deliver minerals and live cattle from the region for export to Europe and Asia.

Due to the geographical sparsity and lack of infrastructure, the North West region has very strong linkages with industries and communities outside of the region. Of particular importance are links with the major export centres of Townsville, and to a lesser extent, Darwin. Queensland Rail transports large amounts of both mineral concentrate and livestock to Townsville for processing or export. The Mt Isa -Townsville rail link also provides a cost-effective means for other industries in the region to transport products to the east coast of the State. Livestock is also frequently trucked to Townsville for processing.

In addition, imports to the region are also sourced through the Port of Townsville.

Ports

Port of Cape Flattery

Located 200 kilometres north of Cairns, the port of Cape Flattery is the most northerly trading port on the east coast of Australia. It is dedicated to the export of silica sand from the nearby Cape Flattery mine.

The port consists of onshore silica sand handling and stockpiling facilities and a jetty and conveyor running from the mine to an offshore berth and ship loader. A general-purpose wharf is used for importing fuel and other supplies and for the mooring of two line boats that assist in ship berthing. The facility is operated by Cape Flattery Silica Mines Pty Ltd (CFSM).

A further increase on last years figures found silica sand exports increasing by 9.56% during 2003-04 rising 158,461 tonnes to 1,816,661 tonnes. To achieve this level of trade the port handled 37 ships.

Cape Flattery is an extremely remote, single commodity port with sufficient infrastructure and resource stocks to withstand many years of growth. Despite no rail access and only passable road access, operations are not hampered, nor likely to be so for the foreseeable future.

Port of Karumba

The Port of Karumba is located at the mouth of the Norman River in the Gulf of Carpentaria and handles cargo for the remote gulf communities, providing facilities for handling petroleum, fisheries products and export of live cattle.

It is the region's major trading port with exports of \$360 million in 2002-03⁴¹, the overwhelming majority being metal ores such as zinc and lead (\$335 million). The major destinations for metal ores were the Netherlands, Korea and Japan. The other major commodity exported from the port was livestock (\$24 million), which primarily was transported to Indonesia and the Philippines. The port

⁴¹ ABS Trade Statistics, unpublished data

also imported just over \$9 million in 2002-03⁴², mostly being food and live animals along with a small amount of fuel.

Zinifex Century Project began to export zinc concentrates from Karumba from December 1999. In 2000-01 a trial of exporting lead concentrate was undertaken. For the 2003-04 year, zinc concentrates constitute 85.8% of Karumba's total throughput and lead constitutes 13.7%.

The zinc slurry is piped about 300 kilometres to Karumba where, after removal of the water, it is loaded onto transfer vessels, travelling another 40 kilometres to the export ships anchored in the deep water of the Gulf of Carpentaria.

Karumba is also a transshipment port for the Port of Weipa, Mornington Island and other gulf communities with refrigerated semi-trailers bringing goods north to Karumba for transshipment.

Another record year contributed to an increase of 1.48% to around 1.094 million tonnes for the 2003-04 year for the port of Karumba.

Zinifex Century mine has continued to set new shipment records since operations started. This year is no different with 939,166 tonnes of zinc being handled - an increase of 5,070 tonnes (0.54%). There was also 149,765 tonnes of lead shipped which was an increase of 43.76% (45,585 tonnes).

Live cattle exports showed a downturn of 75.19% or 17,228 head.

The port handled 131 ships to accommodate this level of trade.

Road access to Karumba has been improved significantly in recent years to the point where water over the road during the wet season remains the only barrier to access. There are no sections of dirt road still in existence between Cairns or Townsville and Karumba.

Port of Quintell Beach

The port of Quintell Beach is a small community port comprising of a barge facility located on the east coast of northern Cape York, which services the needs of the Lockhart River community and remote grazing properties. The barge is used mainly for the handling of general cargo, building materials and fuel for the surrounding communities, as most of these areas are not accessible by road for 4-5 months of the year.

The port handled 2,389 tonnes of general goods and drum fuel, up by almost 65% on the previous year.

Port of Thursday Island

The port of Thursday Island is a community port located in a natural harbour. The port services the needs of both Thursday Island and Horn Island and also operates as a major transshipment point for the supply of essential cargoes to other islands of the Torres Strait.

The port is used for importation of supplies such as household goods and fuel and it also provides facilities for the navy, customs, police and coast pilot services.

In 2003-04 general cargo trade of 92,191 tonnes passed through the port which was a 21% increase on the previous year.

Thursday Island is a small port situated on a small island with most of the freight being consumed within a very small radius.

⁴² ABS Trade Statistics, unpublished data

Road, Rail, Port Infrastructure Issues

Transport related infrastructure issues include:

- The Port of Karumba is constrained by the relative shallowness exacerbated by the large tidal flows.
- A recent upgrade to the Barkly Highway has made the highway more accessible and better able to meet the transport needs of the North West. The Barkly Highway links Cloncurry and Mount Isa and is used to transport ore from the Century Mine to Mount Isa.
- Several opportunities exist with regards to transport, storage and logistics associated with the development of major linkages to Darwin, including the development of a major freight and logistics centres, with specialist skills in warehousing, distribution and materials handling.
- Possible exploitation of the large bauxite and kaolin mineral resource near Aurukun on the western coast of Cape York, has the potential to significantly increase port related activities in north and far north Queensland. The Aurukun Project Infrastructure Scoping Study, examines the six deep-water port facility options likely to be considered by project proponents for handling this trade. These six locations are: Pera Head (Aurukun), the south bank of the Embley River (Weipa), Townsville Port, Abbot Point, Dudgeon Point and Gladstone Port.

APPENDIX 2: Queensland Ports Trade Statistics 2003/2004