

CHAPTER 2

THE SOUTH-EAST QUEENSLAND REGION

OVERVIEW

Location

The South-East Queensland region, for regional forest agreement (RFA) purposes, covers the south-eastern corner of the State and is roughly defined by the New South Wales border in the south and by the city of Gladstone in the north. To the west it extends to the Bunya Mountains and Kroombit tops (Monto is outside of the region). It also takes in the Blackdown Tableland area, an isolated outlier approximately 250 km inland. The region includes the major centres of Greater Brisbane, Bundaberg, Maryborough, Gympie and Gladstone and the extensively developed coastal areas of the Gold and Sunshine Coasts, as well as many smaller rural towns, as shown in Figure 1.

Size and tenure

The South-East Queensland biogeographical region covers about 6.1 million hectares encompassing some 44 local government areas, as shown in Figure 2. Land use is diverse, with urban and industrial areas, forestry in native and plantation forests, national parks, and dryland and irrigated production of sugar, dairy, beef, grain, fruit and vegetables.

Private land in the region occupies 70 per cent of the total area, approximately half of which is cleared land. Leasehold land occupies about another 10 per cent of the area. State forests and other Crown land occupy about 15 per cent of the region, and national parks occupy about five per cent. Other areas (water bodies, road reserves etc.) occupy five per cent.

For the purposes of the RFA, tenure items within the Digital Cadastral Database have been simplified into a number of classes. These classes include State forests, national parks, term leases and occupational rights.

Permitted uses vary depending upon the tenure class. The State has the rights to timber on State forest and timber reserves whereas timber rights may be granted to the lessee on other tenure classes. Timber rights are granted to the lessee on freeholding leases whereas the State maintains the rights to timber on most perpetual and term leases and occupational rights.

Substantial areas of native vegetation have been cleared for urban development and agriculture and today forests cover about 48 per cent of the region. Some 65 per cent of the forested area is privately owned (1 203 000 hectares, including 14 000 hectares of plantations). State forests cover 900 000 hectares of which about 78 per cent, or 688 897 hectares, is native forest, with the balance being native and exotic plantations.

Population

The population of the South-East Queensland region is as diverse as the landscapes and comprises major metropolitan, regional and rural centres. Residents across these areas use the forests for different purposes and have a range of different values and concerns relating to the forests and the RFA processes.

The population of the region is approximately 2 450 000 (Australian Bureau of Statistics 1996), most of which is concentrated in the metropolitan area of the south-east corner of the region in Greater Brisbane and the Gold and Sunshine Coasts. In addition, regional cities of Gympie, Maryborough and Bundaberg have significant populations. As well as these major population centres, there are many rural towns and small townships that service the dispersed rural areas.

Seven of the 10 urban centres with the greatest population growth in Australia since 1991 were in Queensland (ABS) and South-East Queensland is the fastest growing region in Australia. The region's population is predicted to increase to 3.7 million by 2021. This represents a 61 per cent growth in population since 1996, which compares with a population growth of 52 per cent for the whole State over the same period.

Population growth is highest in the coastal and coastal hinterland areas of the region, particularly on the fringes of Brisbane, the Gold Coast, the Sunshine Coast and Hervey Bay. Rural areas to the west are generally experiencing low or negative population growth.

Vegetation

The region has great biological diversity. Its physical geography ranges from extensive alluvial valleys and coastal sand masses to volcanic hills and ranges, all of which support a wide range of forest types.

Specific forest types include remnants of sub-tropical and warm temperate rainforests and moist eucalypt forests that are mainly restricted to the mountain regions. Other forest types include tall open forests, open Eucalyptus forests and woodlands, dry eucalypt forests, Melaleuca wetlands, and Banksia low woodlands and heaths. The diversity of habitats is reflected in the overall species richness of the area. South-East Queensland, together with north-east New South Wales, is one of the richest parts of Australia for birds, amphibians and eucalypts.

About 56 per cent of the vegetation cover of South-East Queensland has been cleared for urbanisation, agriculture and grazing. Clearing and fragmentation has impacted upon many lowland-dwelling species that have declined in abundance as a consequence. Some of the ecosystems most affected by clearing include lowland rainforest that fringed many streams, forest red gum woodlands of alluvial plains and the tall paperbark forests that grew near the estuaries of the coastal streams. In comparison with the lowland parts of the region, the forested hills and ranges retain a high proportion of their natural vegetation cover.

The most productive of Queensland's forests are restricted to a narrow coastal strip east of the Great Dividing Range where rainfall and soil conditions are favourable. The region is particularly suited to plantations and is the State's premier timber-producing region, supporting some 90 per cent of the Department of Primary Industries' forestry plantation estate.

Regional economy

The region supports a wide range of forest-related industries including agriculture, mining, timber harvesting and processing, grazing, bee-keeping and recreation and tourism.

The following provides an overview of the key industries in the region.

Timber

Timber industry activities include forest management, logging, transport, sawmilling and other timber processing.

The Queensland timber industry was estimated to have a gross product of 370 million in 1996-97 and its total exports amounted to \$53 million, compared with imports valued at \$363 million in that year. Close to 8400 people are employed in the forest management, primary and secondary timber processing sectors in South-East Queensland.

Native forests supply 60–65 per cent of the total Queensland native hardwood sawlog cut. South-East Queensland accounts for nearly 80 per cent of total direct industry employment and over 80 per cent of the total direct gross output. There are about 120 timber industry primary processors in South-East Queensland.

Tourism and recreation

Tourism and recreation activities range from bush-walking, horse riding, picnicking and sightseeing, to ecotours.

There are 224 State forests and 143 national parks accessed by the population and tourists to the region, resulting in an estimated 7.6 million visitor-days to these areas each year. The economic value estimated by consumer surplus is estimated to be between \$75 and \$118 million per year. Projected to 2021, this economic value could reach up to \$2–3 billion. Recreation and tourism in the forests of South-East Queensland could increase by 36 per cent to the year 2011, and to 57 per cent by the year 2021.

Information on the employment characteristics of the tourism and recreation industries in South-East Queensland is incomplete, although case study evidence indicates that in many rural towns at least three-quarters of the businesses have some reliance on tourism and recreation.

Businesses dependent in some form on this industry include arts, crafts and souvenirs, restaurants, commercial tour operators, transport, adventure companies, accommodation and entertainment.

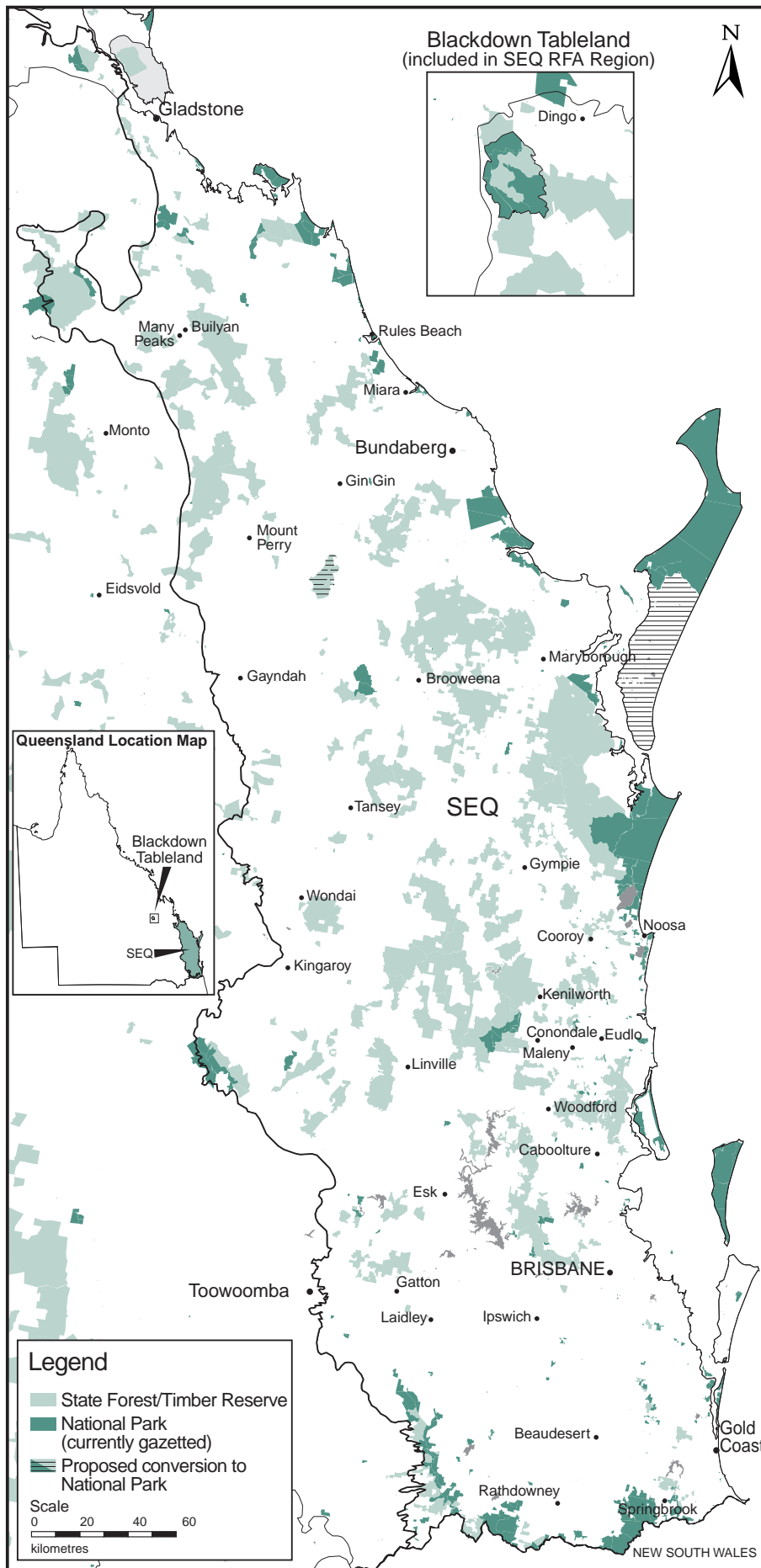


Figure 1. South-East Queensland

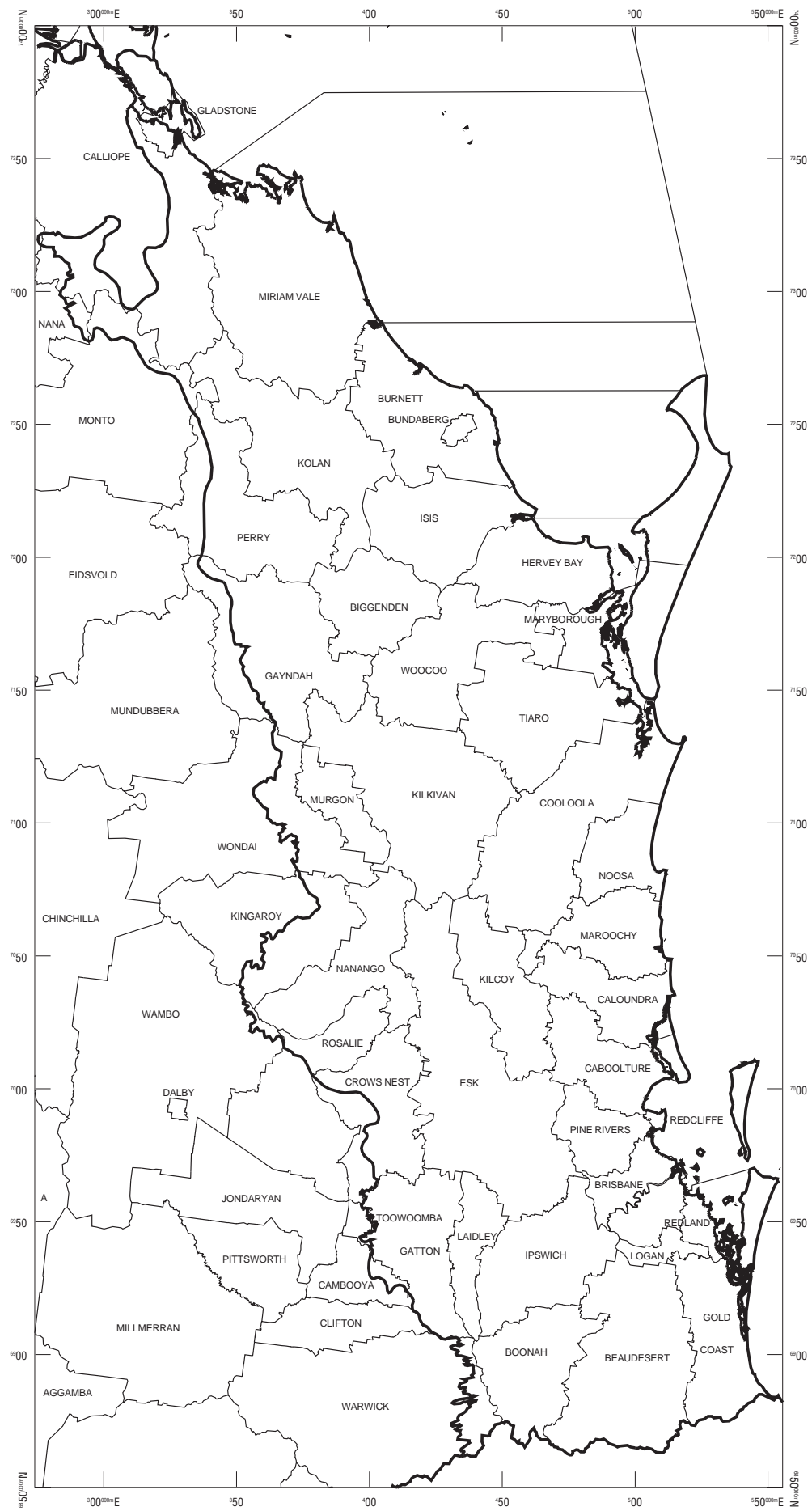


Figure 2. Local government areas in the RFA region

Mining

The forested areas of the region contain significant mining operations for heavy minerals and coal, as well as smaller mines for gold and industrial minerals. In 1996 there were 147 mining leases totalling 230 square kilometres, representing 0.65 per cent of the forested area. Active mining operations, located in 19 centres, produced minerals to a value of \$199.2 million in 1996–97. Some 640 people were directly employed in these operations, but these figures do not take into account the multiplier effect of employment in production and secondary processes.

Forest grazing

Approximately 412 000 hectares, or 49 per cent of the area of State forests, timber reserves and State reserves, are currently leased for stock grazing. Forest grazing is a low-productivity component of the industry and is used mainly to provide graziers with flexibility. Nearly 43 000 head of cattle are grazed in these areas, resulting in 1996–97 in an estimated economic value of \$1.4 million in the region.

Geology, landform and soils

The oldest rocks of the region comprise undifferentiated Palaeozoic rocks as deeply weathered siltstones, shales, greywackes and limestones. These have been intruded by Permo-Triassic granitoid rocks as granite, granodiorite, adamellite and diorite. These intrusions trend north-northwesterly and occur as outcrops at Miriam Vale and Mount Perry, west of Bundaberg, and as large batholiths in the districts of Kingaroy, Wondai and Camboon.

Permian and Triassic volcanics and interbedded sandstones and shales occur along the north-eastern edge of the region and near Gympie and Nambour. These rocks form resistant ridges trending north-northwesterly and comprise volcanic agglomerate, acid tuff, rhyolite and trachyte. The rocks are similar in age to that of sediments deposited in basins on the western margins of the Fold Belt, which include economic coal deposits at Ipswich, Callide and Tarong.

During the Triassic-Jurassic, continental sediments were deposited in a number of basins located in the western and eastern sections of the region. To the west, these basins consist of fossiliferous sandstones, shales and carbonaceous shales with economic coal deposits. The basins on the eastern edge of the region comprise Jurassic continental sediment as fossiliferous sandstones, siltstones and shales with lenses of carboniferous shale.

Basaltic and rhyolitic flows and tuffs, as a result of Tertiary volcanic activity, form remnants of a large volcanic complex whose crater was above the present Mt Warning igneous complex just south of the Queensland-New South Wales border. These volcanics consist of flat-topped spurs radiating to the north-west, north and north-east, separated by deeply incised valleys. These Tertiary lavas form the Great Dividing Range between the border with New South Wales and Kingaroy in the north, and make up the coastal lowlands in the vicinity of Maroochydore and Coolangatta.

Tertiary sediments are associated with the volcanics and occur as interbedded sequences of soft mudstones, sandstones, lignite and coarse conglomerate.

The quaternary unconsolidated sediments occur as coastal sand plains and dunes, and as alluvium associated with the main drainage systems inland.

Climate

South-East Queensland has a humid sub-tropical climate with mild winters and warm summers. December and January are the hottest months. Most rain occurs in summer, a result of convective storms associated with low pressure troughs that extend south from north Australia. Winter rain is associated with the passage of cold fronts extending northwards from mid-latitude depressions. Prevailing winds are from the west or south-west in the winter, but occasionally the development of low pressure systems off the coast produces an inflow of moist air from the east. July is the coolest month when the mean daily temperature may drop below 10 degrees Celsius. Although there is less cloud in winter than in summer, the risk of frosts is limited in coastal areas. Fogs are more frequent in winter.