

# STRATEGIC DIRECTIONS

The Central Queensland Regional Economic Development Strategy Inception Study



UNIVERSITY OF  
CENTRAL  
QUEENSLAND

EMERALD  
330.99435

19  
VI, C5

**FINAL  
REPORT**

February 1993

# STRATEGIC DIRECTIONS

## THE CENTRAL QUEENSLAND REGIONAL ECONOMIC DEVELOPMENT STRATEGY I SECTION STUDY

**FINAL**

*Disclaimer: The information and recommendations contained in this Report do not represent the opinions and attitudes of the Queensland State Government and interested parties should conduct their own evaluations and draw their own conclusions.*

Project Manager: Liam Ryan  
University of Central Queensland



February 1993

## TABLE OF CONTENTS

	Page No.
Study Management Committee	xvii
Study Consultative Committee	xvii
Study Team	xviii
Executive Summary (See Separate Document)	
<b>SECTION 1 INTRODUCTION: THE POLICY CONTEXT</b>	
1.0 Introduction: The Policy Context	1
1.1 Background	2
1.2 Study Objectives	3
1.3 Modus Operandi	4
1.4 Terms of Reference	5
1.5 The Nature of Regional Economic Development	7
1.6 State Economic Development Policy Context	8
1.7 State Regional Development Principles	11
1.8 Study Rationale	14
1.9 Definition of the CQ Region	16
1.10 The Study Area	17
1.11 Study Management	19
1.12 Study Design and Timeframe	19
1.12.1 A Consultative Approach	19
Figure 1.1: Organisational Chart: CQ Regional Economic Development Strategy Study Management	20
1.12.2 Statistical Profiles: 1 March - 30 June 1992	21
1.12.3 The Study Agenda: 1 June - 18 December 1992	21

Figure 1.2:	Study Schedule: CQ Development Strategy Study Activity Plan	22
1.13	Study Methodology	23
1.14	Study Reporting	24
1.15	Acknowledgments	25
1.16	References	26
 <b>SECTION 2: THE CENTRAL QUEENSLAND COMMODITY RESOURCE BASE: UNLIMITED POTENTIAL</b>		
2.0	The Central Queensland Commodity Resource Base	28
2.1	Introduction	28
2.2	CQ Commodity Production: Overview	28
Figure 2.1:	Estimated Value of CQ Primary Commodity Production 1990-91	29
Table 2.1:	Estimated Value of CQ Primary Commodity Production (\$'000)	31
2.3	Commodity Resource Base by Sub-Region	33
2.3.1	Introduction	33
2.3.2	Rockhampton Area: Sub-Region 1	33
Figure 2.2:	Estimated Value of Rockhampton Area Primary Commodity Production	34
Table 2.2:	Estimated Value of Rockhampton Area Primary Commodity Production (\$'000)	35
2.3.3	Gladstone Area: Sub-Region 2	35
Figure 2.3:	Estimated Value of Gladstone Area Primary Commodity Production 1990-91	36

Table 2.3:	Estimated Value of Gladstone Area Primary Commodity Production (\$'000)	37
2.3.4	The Central Highlands Area: Sub-Region 3	37
Figure 2.4:	Estimated Value of Central Highlands Area Primary Commodity Production 1990-91	38
2.3.5	Mackay Area: Sub-Region 4	39
2.3.6	The Central West Area: Sub-Region 5	39
Table 2.4:	Estimated Value of Central Highlands Area Primary Commodity Production (\$'000)	40
Table 2.5:	Estimated Value of Mackay Area Primary Commodity Production (\$'000)	40
Figure 2.5:	Estimated Value of Mackay Area Primary Commodity Production 1990-91	41
Figure 2.6:	Estimated Value of Central West Area Primary Commodity Production 1990-91	42
2.3.7	Summary Points	43
Table 2.6:	Estimated Value of Central West Area Commodity Production	44
2.4	The Coal Industry	45
2.4.1	Introduction	45
2.4.2	Recent Production Trends	45
Figure 2.4.1:	CQ Coal Deposit Distribution and Transportation Networks	46
Table 2.4.1:	Queensland Coal Industry Summary	47
Table 2.4.2:	CQ Coal Production and Exports	47
Table 2.4.3:	Queensland Coal Exports ('000 Tonnes)	48
Table 2.4.4:	World Coal Trade Trends	48

Figure 2.4.2: Productivity in the Australian Coal Industry	50
Table 2.4.5: Queensland Coal Consumption by Consumer Groups	50
Figure 2.4.3: Underground Production by Areas, Queensland	51
2.4.3 Expected Future Trends in the International Coal Industry	52
Figure 2.4.4: Annual Rate of Economic Growth (%) OECD Countries	53
Figure 2.4.5: World Energy Prices (in 1991-92 SDR Terms)	53
Table 2.4.6: Port of Gladstone Estimated Cargo Throughput 1992-2012	54
Figure 2.4.6: Electricity Output by Fuel, Under Greenhouse Constraint	55
Figure 2.4.7: Forecasts on Power Capacity of Coal - Japan	55
2.4.4 Recent and Planned CQ Coal Mine Developments and Initiatives	56
2.4.5 Value-Adding Prospects	60
2.4.6 Some Policy Pointers	60
2.5 The Beef Cattle Industry	61
2.5.1 Introduction	61
2.5.2 World Beef Production	62
2.5.3 Domestic Market	62
Table 2.5.1: Australian Projected Consumption Per Person (Beef and Veal) 1991-92 to 1996-97	63
2.5.4 Recent Production Trends in Queensland	63
Table 2.5.2: Beef Production Trends: Queensland and Australia: 1985-1992 (Year End Production)	64
2.5.5 Beef Production in the CQ Region	64

Table 2.5.3: Beef Production by State - 1971-1992	65
2.5.6 CQ Industry Outlook	66
2.5.7 Future Prospects for Australian Beef	66
2.5.8 Beef Value-Adding in Central Queensland	68
2.5.9 New Horizons	72
2.5.10 Some Policy Pointers	73
2.6 The Sugar Industry	73
2.6.1 Introduction	73
2.6.2 CQ Sugar Industry	74
2.6.3 Global Production Patterns	74
2.6.4 Production Trends: Queensland and Australia	74
Table 2.6.1: Raw Sugar Production Trends: CQ, Queensland and Australia 1986-1991	75
Table 2.6.2: Australian Sugar Cane Production and Value 1981-82 to 1990-91	76
2.6.5 Sugar Consumption Patterns	76
Figure 2.6.1: Australian Consumption of Refined Sugar 1987-88	77
2.6.6 Comparison of Production Costs - Selected Countries	78
2.6.7 Sugar Export Patterns	78
Table 2.6.3: Cane Sugar Production Costs, Selected Countries 1979-80 to 1986-87	79
Table 2.6.4: Australian Raw Sugar Exports by Country of Destination	80
Table 2.6.5: World Raw Sugar Exports and Imports	80
Figure 2.6.2: Raw Sugar World Exports and Imports	81

Table 2.6.6: Queensland Sugar Exports by Destination (12 Months Ended 30 June 1992)	81
Figure 2.6.3: Queensland Sugar by Destination (12 Months to 30 June 1992)	82
2.6.7 Future Trends	82
Table 2.6.7: Global and Australian Sugar Outlook to 1997	83
2.6.8 Recent and Proposed CQ Sugar Developments	84
2.6.9 Protection Issues	84
2.7 The Grain Industry	86
2.7.1 Introduction	86
2.7.2 The Australian Situation	86
2.7.3 Recent Production Trends and Future Outlook	88
Table 2.7.1: Australian Crop Production by Type 1990-93	89
Table 2.7.2: Global and Australian Recent Wheat Projection Trends and Five Year Projections	90
2.7.4 Grain Production in Central Queensland	90
2.7.5 Industry Restructuring	91
2.7.6 US Wheat Subsidisation	92
2.7.7 Some Policy Pointers	92
2.8 The Wool Industry	92
2.8.1 Introduction	92
2.8.2 State of the Wool Industry	93
2.8.3 The Reserve Price Scheme (RPS)	93
2.8.4 Production - Recent Trends and Future Projections	94



Table 2.8.1:	Summary and Projections of Key Australian Wool Statistics	95
2.8.5	Prices - Current and Future Trends	95
2.8.6	Exports - Current and Future Trends	96
2.8.7	The CQ Wool Industry	96
2.9	The Seafood Industry	97
2.9.1	Introduction	97
2.9.2	The Australian Fishing Industry	97
2.9.3	Queensland Fisheries Production	98
Table 2.9.1:	Gross Value of Australian Fisheries Production 1989-90/1991/92	98
Table 2.9.2:	Queensland Production Data 1988-91	99
2.9.4	The CQ Fishing Industry	99
2.9.5	Aquaculture Production	100
Table 2.9.3:	Queensland Aquacultural Production	101
Table 2.9.4:	Central Queensland Aquacultural Production	101
2.10	The Mining Industry (Excluding Coal)	102
2.10.1	Introduction	102
2.10.2	Gold Production	102
2.10.3	Natural Gas	102
Table 2.10.1:	CQ Mineral Production (Excluding Coal) 1989/90 and 1990/91	103
2.10.4	Magnesite Production	104
Figure 2.10.1:	Kunwarara Magnesite - Joint Venture Details	105

	Page No.
2.10.5 Construction Material Production	105
2.10.6 Other	105
2.10.7 Identified Mineral Sands Resources	106
2.10.8 Methane Gas	107
2.10.9 Oil Shale	108
2.11 The Cotton Industry	110
2.11.1 Introduction	110
2.11.2 The Industry in Queensland	110
2.11.3 The CQ Cotton Industry	110
2.12 The Dairying Industry	111
2.13 The Horticulture Industry	112
Table 2.13.1: Horticultural Crops in Central Queensland 1991/92	113
2.14 The Timber Industry	114
2.15 Industrial Infrastructure	115
2.15.1 Introduction	115
2.15.2 The Road Network	115
2.15.3 The Rail Network	117
2.15.4 Port and Related Infrastructure	117
Figure 2.15.1: Railway Map of Central Queensland	118
2.15.5 Airport and Associated Infrastructure	120
2.15.6 Transport Infrastructure - General	121
2.15.7 Electricity Supply	122
2.15.8 Water Supply/Storage Infrastructure	124

	Page No.
2.15.9 Natural Gas Infrastructure	126
2.15.10 The Communications Network	127
2.15.11 Industrial/Commercial Land Availability	128
2.15.12 Other Industrial Infrastructure	129
2.15.13 Service Industry Infrastructure	131
2.15.14 CQ Infrastructure Endowment: Concluding Comments	131
2.16 References	132
 <b>SECTION 3 REGIONAL AND SUB-REGIONAL PROFILES: THE STATE OF PLAY</b>	
3.0 Regional and Sub-Regional Profile	138
3.1 Introduction	138
3.2 The Study Target Area	138
3.3 Geographic Outline	138
3.4 Climate	138
Table 3.1: Rainfall: Selected Locations	139
3.5 Vegetation	140
3.6 Population Trends	140
Table 3.2: Population and Populaton Projections by Local Government Area	141
3.7 The Rural Decline Phenomenon	144
3.8 Labour Force Status	146
3.9 Industry Distribution of Workforce	146
Table 3.3: Labour Force Status - Age and Sex for Combined Mackay, Fitzroy and Central West Statistical Divisions, August 1988-August 1991	147

Table 3.4:	Employed Persons - Status of Worker, Industry and Occupation for Combined Mackay, Fitzroy and Central West Statistical Divisions, August 1988-August 1991	151
3.10	Demographic Workforce Comparisons by Sub-Region - 1986 Census	153
Table 3.5:	Demographic/Workforce Comparisons by Local Government Area - 1986	154
3.11	Manufacturing	155
3.12	Tourism	156
Table 3.6:	Comparative Tourism Performance - Hotels and Motels, 1984, 1987, 1991 and 1992	157
3.13	Retailing	159
3.14	Building Approvals	160
3.15	Tertiary Education	160
3.15.1	Introduction	160
3.15.2	The University of Central Queensland (UCQ)	160
Table 3.7:	Full Fee Paying Overseas Students, 1989-1992	162
Table 3.8:	University of Central Queensland: Projected Teaching Profile to 1995 (a)(b)	164
Table 3.9:	University of Central Queensland: Capital Building Projects Completed, 1989-92	165
Table 3.10:	External Research Grants Awarded to University of Central Queensland Staff, 1991	166
3.15.3	TAFE	167
Table 3.11:	TAFE College Growth 1990-94	167
3.15.4	Longreach Pastoral College	167
3.15.5	Emerald Agricultural College	168

3.16	The 1991 ABS Census Data	168
	Table 3.12: Post-Secondary Qualifications: CQ and Queensland 1986	169
3.16.1	The Robinson/Jensen Projections	170
3.17	References	173

#### **SECTION 4 NEEDS AND OPPORTUNITIES: A COMMUNITY PERSPECTIVE**

4.0	Needs and Opportunities: A Community Perspective	175
4.1	Introduction	175
4.2	Central West: Regional and Sub-Regional Versus LGA Perspectives	175
4.3	Background	176
4.4	Central West: The Economic Base	177
4.5	Central West: Future Search Workshops - The Objectives	177
	Table 4.1: Central West: Opportunity Priority Rankings by Shire	178
4.6	Central West: Opportunity Horizons	179
	Table 4.2: Central West Future Search Workshops: Potential Projects and Initiatives	180
4.7	Central West: Some Strategic Policy Pointers	181
4.8	Central Highlands: A More Diversified Economic Base	183
4.9	Central Highlands: Future Search Workshops	183
4.10	Central Highlands: Opportunity Horizons	184
	Table 4.3: Central Highlands: Opportunity Priority Rankings	185
4.11	Central Highlands: Some Strategic Policy Guidelines	186

Table 4.4:	Central Highlands Future Search Workshops: Potential Projects and Initiatives	187
4.12	Central West and Central Highlands: CQ Regional Context	189
4.13	The 'Needs and Opportunities' Attitudinal Survey: Background	189
4.14	'Needs and Opportunities' Survey: Summary of Findings	190
4.15	'Needs and Opportunities' Attitudinal Survey: Policy Implications	191
Table 4.5:	Central Queensland's Most Important Assets	192
Table 4.6:	Significant Impediments to the Economic Development of the CQ Region	193
Table 4.7:	CQ Industries with the Greatest Development Opportunities	194
Table 4.8:	Changes of Improvements required to Facilitate The Economic Development of CQ	195
Table 4.9:	New Business/Industrial Opportunities in the CQ Region	196
Table 4.10:	New CQ Value-Adding/Export Opportunities	197

## **SECTION 5 NARROWING THE FOCUS: KEY STAKEHOLDER PERSPECTIVE**

5.0	Narrowing the Focus: Key Stakeholder Perspective	200
5.1	Introduction	200
5.2	Private Sector Stakeholder Survey (BR.4)	200
5.2.1	Introduction	200
5.2.2	Survey Design and Methodology	201
5.2.3	Summary of Findings	202
Table 5.1	Including Mackay Area as Part of CQ	202
Table 5.2	Including Bundaberg Area as Part of CQ	203

Table 5.3	Greater Commercial Linkage Between Gladstone and Rockhampton	203
Table 5.4	Extension of Rail Electrification to Mackay	204
Table 5.5	Establishing a CQ Regional Development Authority	205
Table 5.6	CQ Entering a Period of Sustained Economic Growth	205
Table 5.7	Adequacy of Housing Supply	206
Table 5.8	Use of Government Services	206
Table 5.9	Adequacy of Government Services	207
Table 5.10	Effectiveness of CQ Promotion	208
Table 5.11	Quality of CQ Infrastructure	208
Table 5.12	Important Strategic Considerations	209
Table 5.13	CQ Drawbacks	210
Table 5.14	Awareness of CQ RED Study	211
Table 5.15	Expected Beneficial Outcomes of CQ RED Study	211
Table 5.16	Awareness of CQ Journal	212
Table 5.17	Expected Beneficial Outcomes of CQ Journal	212
Table 5.18	Awareness of IBECQ	213
Table 5.19	Expected Beneficial Outcomes of IBECQ	213
Table 5.20	CQ: Recession Breaker	214
5.3	Public Sector Regional Chief Executive Officers (CEO) Interview Report	215
5.3.1	Introduction	215
5.3.2	Summary of Findings	215
Table 5.21:	Ranking of the Effectiveness of the Promotion of the Central Queensland Region	217

Table 5.22:	Ranking of the Quality of Central Queensland Infrastructure	218
Table 5.23:	Ranking of Strategic Considerations	219
Table 5.24:	Ranking of Perceived Impediments to Economic Development in Central Queensland	220
Table 5.25:	Beneficial Outcomes of the Study	220
Table 5.26:	Beneficial Outcomes of the Journal	221
Table 5.27:	Beneficial Outcomes of IBECQ Initiative	222

## **SECTION 6 SETTING ECONOMIC DEVELOPMENT PRIORITIES FOR THE CQ REGION: IN A NUTSHELL**

6.0	Setting Economic Development Priorities for the CQ Region: in a Nutshell	224
6.1	Introduction	224
6.2	The Consultative Committee Workshop	224
6.3	The CQ Economic Development Public Workshop	228
6.3.1	Introduction	228
	Group 1: Presenter's Summary: Action Agenda	231
	Group 2: Presenter's Summary: Action Agenda	232
	Group 3: Presenter's Summary: Action Agenda	233

## **SECTION 7 CENTRAL QUEENSLAND REGIONAL AND SUB-REGIONAL ECONOMIC DEVELOPMENT STRATEGY OUTLINES: SETTING THE COURSE**

7.0	Central Queensland Regional and Sub-Regional Economic Development Strategy Outlines: Setting the Course	236
7.1	Introduction	236



7.2	Conceptual Issues	236
7.2.1	Community Input Versus Statistical and Conceptual Input	236
7.2.2	The Sub-Regional Strategy Aggregation Problem	238
7.2.3	Sub-Regional Strategic Plans Versus Sub-Regional Development Organisation Plans	238
7.2.4	Planning Versus Free Enterprise	239
7.2.5	The Confidentiality Barrier	239
7.2.6	The Big Decisions are made Outside Central Queensland	240
7.2.7	Concluding Comment	240
7.3	Proposed Regional Development Strategy: CQ Region	241
7.4	The Dynamics of Central Queensland	241
7.4.1	Coal Production	241
7.4.2	Agri-food Production: Some Strategic Considerations	243
7.4.3	Mineral Production and Processing	246
7.4.4	Natural Fibres (Wool and Cotton)	246
7.5	The Bare Elements	247
	Figure 7.1: CQ Strategic Directions	248
7.6	The Rockhampton Sub-Region Strategy	249
7.7	The Gladstone Sub-Region	250
7.8	The Central Highlands Sub-Region	251
7.9	The Mackay Sub-Region	252
7.10	The Central West Sub-Region	253
7.11	Maximising Sub-Regional Benefits	254

## **SECTION 8 RECOMMENDATIONS AND IMPLEMENTATION STRATEGY: MAKING IT HAPPEN**

8.0	Recommendations and Implementation Strategy: Making it Happen	256
8.1	Introduction	256
8.2	Key Recommendations	257
8.2.1	Regional Development - Organisational and General	257
8.2.2	Agricultural Industries	266
8.2.3	Tourism	268
8.2.4	Infrastructure	268
8.2.5	Central West and Central Highlands	269
8.2.6	Miriam Vale Shire	271
8.3	Longer Term Considerations	272
8.4	Implementation Strategy: Some Suggestions	273
8.5	Suggested DBIRD Action	273
8.6	Future Research Areas	277
8.7	Concluding Comments	278

## STUDY MANAGEMENT COMMITTEE

Chair: Professor Ron Young (University of Central Queensland)  
*On retirement replaced by:*  
Professor Geoff Wilson, Vice-Chancellor (University of Central Queensland)  
Mr Brad Carter (Department of Business, Industry and Regional Development)  
Mr Graham Bloxsom (Queensland Confederation of Industry)  
Mr David Kirkland (Capricorn Tourism and Development Organisation)  
*On resignation replaced by:*  
Mr Ron Stendrup (Capricorn Tourism and Development Organisation)  
Mr Ken Dooley (University of Central Queensland)  
Mr Liam Ryan (University of Central Queensland)

Other invited attendees at particular Management Committee meetings were: Miss Rebecca Murphy (DBIRD), Mr Des Nicholson (DBIRD), Mr John Chapman (CTDO), Mr Colin Reynolds (CTDO), Mr Greg Fahey (DBIRD - Brisbane), Mr Mark White (DBIRD), Mr John Beeson (DBIRD), Mr Dick Pegnetter (Colorado State University), Mr Wallace Taylor (QDPI), Ms Karen Olive (DBIRD) and Mrs Sharon Purchase (DBIRD).

## STUDY CONSULTATIVE COMMITTEE

Chair: Mr Liam Ryan (Project Manager)  
Mrs Jean McRuvie (Central Highlands Promotions and Development Organisation Inc)  
Mrs Glenda Arthur (Rockhampton & District Promotion & Development Association Inc)  
Mr Ian Laurie (Gladstone Area Promotion and Development Limited)  
Mr Colin Reynolds (Capricorn Tourism and Development Organisation)  
Mr Matthew Magin (Mackay Regional Development Bureau Inc)  
Mr Tom Murphy (Remote Area Planning and Development Board)

## STUDY TEAM

The Study Team consisted of In-House Consultants used for specific projects such as conducting in-depth interviews, and mainly postgraduate students from UCQ engaged on a casual basis as Special Project Officers and Research Assistants. Data analysis and word processing was performed by experienced full-time and part-time staff supervising undergraduate students engaged on a part-time basis.

### PROJECT MANAGER

Liam Ryan

### IN-HOUSE CONSULTANTS

Barry Schmidt of Financial Wisdom  
Jason Schmidt of Financial Wisdom  
Garry Pennell of Garry Pennell and Associates  
Anthony Simon-Kunkel of Empower Planning  
Ben Faa of Ben Faa and Associates

### SPECIAL PROJECT OFFICERS

David Bryant  
Jason Schmidt  
Paramjit Singh Basra  
Natalie Dooley

### RESEARCH ASSISTANTS

Pritam Choudhary  
Manish Kumar  
Michelle Dooley  
Sudhir Kumar  
Himanshu Patel  
Hu Bo  
Shane Fullerton

### DATA ANALYSTS

Ken Dooley (Supervisor, Data Analysis)  
Linda Ahern  
Peta Hamilton  
Bob Scott (TAFE Lecturer)  
Susan Arnall  
Kirsten Brynildsen

### WORD PROCESSOR OPERATORS

Lyn Ryan  
Julia Wyeth

## **SECTION 1**

### **INTRODUCTION: THE POLICY CONTEXT**

## 1.0 INTRODUCTION: THE POLICY CONTEXT

In evaluating the present state of development, recent performance and future prospects of the Central Queensland (CQ) economy, there has to be an awareness that, in the past, most of the strategic decisions affecting the growth and development of the CQ Region were made outside the CQ Region.

This is not surprising, as the CQ Region is not a separate political entity as such, and, unlike Southeast Queensland, this Region has not had the benefit of being the subject of a separate economic development strategy study.

There are limitations on the ability of State Governments to influence the nature and pace of sub-regional economies within a federal system because regional economies are substantially dependent on developments in the State, national and international economies.

Because of its dominant commodity export orientation, the CQ economy is particularly sensitive to price fluctuations in international commodity markets and changes in international trading arrangements, particularly in relation to major importers of our commodities such as Japan and the United States (US).

There is the additional problem that there is no generally recognised CQ spatial entity as such; that is, no clear definition of what constitutes the CQ Region.

*Strategic Directions* integrates the key findings of the various Background Reports that comprise the Central Queensland Regional Economic Development Strategy Inception Study into one document.

The proposed strategy has been researched and developed through extensive consultation over a twelve month period.

It is the product of consultation with sub-regional development organisations, private sector companies and small businesses, local government authorities, State Government department regional managers, executives of public enterprises and statutory authorities, trade unions, professional and community organisations and a cross-section of individuals throughout the CQ Region.

It has engaged the support of local government and regional development organisations and has consulted with senior management of State Government regional offices in identifying priority issues such as critical infrastructure needs and developing sub-regional goals and strategies.

It is based on a thorough analysis of the recent performance and future prospects of the key industries that constitute the economic base of the CQ Region.

- . It documents the regional development aspirations and visions of the CQ community within the context of its existing resource base and future development prospects and identifies a range of emerging opportunities for strengthening and diversifying the economy of the Region.
- . It provides signposts to opportunity horizons that can be attained through careful planning, cooperative effort, unity of purpose and effective networking.
- . It provides the State Government with reliable, up-to-date input for policy development purposes as well as valuable insights into ways of enhancing the delivery of regional services and programs.
- . As one would expect with a Study that was conducted over a twelve month period, quite a number of interim recommendations developed throughout this period, particularly at the sub-regional level, have already been translated into action or are in the process of implementation or further investigation.

## 1.1 BACKGROUND

In late 1991, separate submissions from the University of Central Queensland (UCQ) and the Capricorn Tourism and Development Organisation (CTDO) to the Department of Business, Industry and Regional Development (DBIRD), under the Regional Economic Development (RED) Program, were successful in attracting funding assistance to conduct a Central Queensland Regional Economic Development Strategy Inception Study.

DBIRD provided funding of \$30,000 which had to be matched by UCQ, while CTDO were obliged to provide 'in kind' assistance with the Study to the value of \$5,000.

The University was assigned responsibility for the management and execution of the Study which was scheduled for completion before the end of 1992.

In advising UCQ of the success of its submission in attracting a \$30,000 DBIRD grant on a dollar-for-dollar matching basis, the then Minister, the Hon. Geoff Smith MLA, advised as follows:

'Approval is subject to the general conditions outlined in the Guidelines for Assistance and the following specific conditions:

1. The Terms of Reference for the Study and the selection of any consultant must be done in consultation with Rockhampton Regional Office.

2. My Department's Regional Manager is to be a member of the management committee of the Study.
3. Reference must be made to interest groups across the Region to ensure the validity of the Study.
4. In recognition of the commitment to be made by the Capricorn Tourism and Development Organisation (CTDO) to the Study, a representative of the CTDO is to be a member of the management committee of the Study.

My Department's Regional Manager will liaise with you on the specific requirements and conditions concerning the provision of this funding.'

In addition to the Central Queensland Regional Economic Development Strategy Inception Study, two related initiatives were successful in attracting DBIRD grants which had to be matched on a dollar-for-dollar basis by UCQ. These were the *Central Queensland Journal of Regional Development* (\$20,000) and the International Business Exchange - Central Queensland (IBECQ), with a grant of \$5,000 for conducting a pre-feasibility study of the IBECQ initiative.

## 1.2 STUDY OBJECTIVES

The prime objective of this Study was to provide strategic direction for the future economic development of the CQ Region, defined as DBIRD-Central, incorporating the Australian Bureau of Statistics (ABS) Statistical Division of Mackay, Fitzroy and Central West, plus Miriam Vale Shire from the Wide Bay-Burnett Statistical Division.

Sub-objectives, as stated in Section 3.3 of the Grant Application, were:

- (i) to provide a reasonably accurate picture of the present state of development of the CQ economy, viz a comprehensive statistical profile by sub-region and local government area (LGA);
- (ii) on the basis of an analysis of the relevant time series data (trend analysis), to isolate key determinants of growth and potential lead sectors and industries;
- (iii) to present middle-range (5 year) projections on the basis of the above trend analysis and information on major new investment initiatives; and



- (iv) to provide justification for the future commissioning of a comprehensive economic development plan/strategy for the Region that will build on the analysis and strategic directions provided by this Inception Study.

### 1.3 MODUS OPERANDI

The Central Queensland Regional Economic Development Strategy Inception Study was carried out using a consultative approach, recognising that different sub-regions and small areas have different aspirations and perceived priorities.

Local and sub-regional communities supplied the prime directional inputs for the Study.

Regular consultation took place with key players, representative bodies and other interested parties and feedback was provided at each stage of the Study's development.

A 'bottom up' consultative approach was adopted to ensure broad-based community support for, and ownership in, the strategy that would emerge and thus enhance its prospects of success.

This approach is in line with that espoused by the Hon. Geoff Smith, then Minister for Business, Industry and Regional Development, in his opening address to the Pacific Regional Science Conference in Cairns on 8 July 1991:

'Regional economic development is essentially concerned with increasing the level of sustainable economic activity in regions.

That, in turn, will create prosperity and improve the standard of living in those regional communities.

This process, however, must be driven from within the individual communities themselves.

Windows of opportunity for regional economic development can only be opened from the inside.

Governments have a responsibility to provide guidance and assistance, but long term regional viability and prosperity can only be attained through locally-driven enterprise and innovation.

The route to greater prosperity and better standards of living lies in the direction of developing regional competitive advantages.

Such advantages exist because of the physical attributes, the resource endowments and the capabilities of the individuals, industries and businesses of a region.

Natural physical advantages will lead nowhere in the end, however, unless all parties work together to make the most productive and beneficial use of them.

That's the challenge of regional development.'

#### 1.4 TERMS OF REFERENCE

The Terms of Reference of the Study, as outlined in the UCQ grant application to DBIRD, may be summarised as follows:

'The overall objective of this Study is to provide strategic direction for the future economic development of the CQ Region defined as the DBIRD Central Region, comprising in their entirety the Australian Bureau of Statistics [ABS] Statistical Division of Mackay, Fitzroy and Central West plus Miriam Vale Shire in the Wide Bay-Burnett Statistical Division, which, although not within the DBIRD Central Area, is part of the Gladstone sub-region.'

To achieve this, the Study will:

1. Compile a comprehensive and up-to-date statistical profile of the economic structure and present state of development of the CQ Region.

This will involve:

- (i) assembling, analysing and interpreting official data procured from the ABS, the State Statistician, Government Departments and the Department of Immigration, Local Government and Ethnic Affairs [DILGEA]) relating to the socio-economic base of the Region;
- (ii) acquiring, analysing and interpreting industry specific data relevant to the industrial base of the CQ Region, including information compiled by the coal, cattle, grain, sugar, wool and cotton industries, as well as recent information on the performance of the tourism, education, manufacturing, retailing and other service industries;
- (iii) analysing and collating relevant primary source data supplied by sub-regional and local bodies; and

- (iv) reviewing recent study reports relating to specific aspects and segments of the CQ Region.

2. On the basis of an analysis of the relevant time series data (trend analysis), to isolate key determinants of growth and identify lead industries and sectors at local, sub-regional and regional levels.

This process will involve:

- (i) using a 'bottom up' consultative approach to ensure broad-based community support;
- (ii) disaggregation of data (where possible) to the LGA level; and
- (iii) strategic evaluation of local and sub-regional plans, proposals and aspirations with a view to building on strengths and identifying factors viewed as being potential retarding influences on the economic development of the Region.

3. Using middle-range (3-5 years) and long-range (10 years) global projections from reputable sources for the key industries that comprise the current economic base of the CQ Region, in the light of the trend analysis in 2 above, to identify threats and opportunities and present a range of possible scenarios based on this analysis.

This exercise will involve:

- (i) an industry by industry analysis;
- (ii) canvassing investment plans and joint venturing opportunities of key operators across the Region;
- (iii) a small business environmental scan;
- (iv) identification of core economic development strategies for the various LGAs and sub-regions; and
- (v) establishing cross-regional networks to facilitate regional integration.

4. To integrate the various local and sub-regional economic development strategies into an overall strategic framework for the development of the CQ Region as defined.

This will ensure that:

- (i) the overall CQ strategy will receive endorsement at the local and sub-regional levels;
  - (ii) the planning process will be clearly perceived as being community-driven, with professional facilitation provided by professional bodies and government agencies;
  - (iii) there will be a clear perception that the strategy is designed to yield palpable benefits across the whole Region; and
  - (iv) the strategy that evolves will provide positive direction for the future economic development of the Region.
5. To provide a rationale for developing a comprehensive economic development plan, including an implementation strategy, for the CQ Region; that is, a major study to follow on this Inception Study, or, in the event of the resources for such a Study not being available, to clearly identify areas that merit further in-depth investigation.

Regional economic development policy has not been accorded a high degree of importance in Queensland until recently, despite the obvious benefits that can flow from guiding and assisting regions to attain their full potential.

## 1.5 THE NATURE OF REGIONAL ECONOMIC DEVELOPMENT

A useful explanation of the regional economic development concept and process is:

‘Regional economic development is concerned with increasing the level of economic activity in regions. Essentially, it is about creating prosperity and improving the standard of living of people living in regions. This involves creating wealth at the national, State, regional and local levels by:

- . the establishment and expansion of export activities;
- . developing local business and employment opportunities;
- . retaining expenditure that would otherwise escape to other places; and
- . harnessing the creativity, intellectual and innovative capacity of individuals.’ (Kemp, DBIRD, 1991)

There are clear advantages in having a plan to guide regional communities in their endeavours towards the attainment of these desirable objectives. Having such a plan would:

- (i) facilitate the development of strategic alliances where a communality of interests was perceived to exist;
- (ii) highlight new business and business expansion opportunities, including ventures with a value-adding and export orientation;
- (iii) encourage the development of a more confident investment environment;
- (iv) assist in developing a sanguine, proactive CQ image/ identity;
- (v) provide a sharp focus on optimising resource utilisation while maintaining the environmental integrity and attractive lifestyle of the Region; and
- (vi) draw attention to the desirability of retaining income within the Region and maximising the growth of income and employment.

## 1.6 STATE ECONOMIC DEVELOPMENT POLICY CONTEXT

*Queensland - Leading State*, issued in April 1992, provides a clear statement of the philosophy underpinning the State's current economic development policy.

The main tenets of that philosophy are:

- (1) the adoption of 'a consistent, coherent policy of *market enhancement*. This policy recognises, above all else, that the private sector is the engine for sustainable economic growth and the role of government is to provide a competitive, stable environment in which the business sector can operate efficiently with minimal Government interference' (Foreword); and
- (2) within an open, consultative participatory planning framework, developing 'a set of policies that are achievable and sustainable and which recognise the limits of a State Government's area of influence and the impact of national and international factors' (Foreword).

The iterative consultation process, involving 'business, unions and the wider community' that has been adopted is continuous in the sense that it goes beyond the policy development stage and recognises that 'successful implementation of the *Leading State* strategies will require a full working partnership of these groups with the State Government' (Foreword).

Some overriding principles influencing the State's economic development policy include the following:

- . Its strong export orientation means that the State economy is highly sensitive to international commodity demand and price fluctuations.
- . The predominance of Japan (coal and beef) and the US (beef and grain) as importers of our main raw commodities also increases the State's vulnerability to exchange rate fluctuations and adverse changes in protectionist measures. This underlines a certain volatility that is more pronounced at the CQ level than it is at the State level.
- . In common with State and Federal Government policies, from a CQ regional viewpoint, there is clear need
  - (i) to provide a business investment environment that will encourage the development of local value-adding activities; and
  - (ii) to open up new markets for traditional raw commodity exports, commodities that have undergone basic processing and fully processed (final) products and services.
- . The transition from a dominantly raw commodity exporter to established markets to an increasingly value-added exporter to new and expanding markets cannot be achieved without adopting a global market outlook which requires fairly drastic changes to current producer attitudes, international trade negotiation and commercial and work practices. Like Australia as a nation, we have to realise that we are in a catch-up situation and need to generate enthusiasm for and commitment to being part of a value-adding culture striving for quality excellence in a keenly competitive environment that owes us no favours.

DBIRD, considered to be '*the* lead agency for business and industry development Statewide', has as its number one corporate goal:

'To develop and expand a productive and efficient Queensland manufacturing and traded service base with special reference to value-added activities'. (*Strategic Plan*, 1991-96, Overview)

Servicing this Corporate Goal is the Industry Development Program, whose function is described as

‘...encouraging the expansion and diversification of Queensland’s economic base by nurturing the establishment of new industries, attracting industries to the State and encouraging the expansion of existing industries’. (*Strategic Plan*, 1991-96, Outline)

The following are identified as ‘Strategies’ to be adopted in the delivery of the above program:

1. Develop methods for identifying industry opportunities in Queensland.
2. Link Queensland companies with other State, interstate and overseas companies and investment capital sources to promote expansion and technology transfer.
3. Use State purchasing policy to promote industry development.
4. Develop joint programs with other government departments to support major investment opportunities.
5. Enhance market focused research and development activity.
6. Encourage and promote the commercialisation of innovative developments in the private and public sectors.
7. Facilitate the development, use and transfer of technologies and innovative processes in industry.
8. Promote and develop networks between industry, academia and government.
9. Encourage and support strategic alliances, joint ventures and networking for small to medium firms.
10. Provide tailored financial assistance to assist new development opportunities.
11. Continue refocussing of DBIRD’s industrial land scheme.
12. Advise Government on preserving and developing strategic industrial land capacities for future growth.
13. Assist major business and industry project developers through the formal approval process.

The point should be made here, and its importance will emerge in the strategy formulation stage of the Study (Section 7) that, whilst all of these DBIRD strategies have relevance at the regional and sub-regional levels, there is a range of potential regional industrial development opportunities that fall outside DBIRD's jurisdiction.

These include opportunities for attracting manufacturers and specialist service providers to relocate intrastate; for example, from Southern Queensland into Central Queensland. And this is an area where some strong prospects will be identified.

## 1.7 STATE REGIONAL DEVELOPMENT PRINCIPLES

Regional development is singled out as one of the five key areas in which the economic policy functions of State Government are concentrated, the others being the management of the State's finances, State taxation and charges, microeconomic reform and industry policy, including the promotion of trade and investment and research and innovation.

*Leading State* identifies several principles enshrined in the State's overall regional economic development policy. Those of particular relevance to the present Study are:

### (i) Impartiality between Regions

'Queensland is a large and diverse State, and the Government's strategy for economic development must take due account of the needs and potential in all regions of the State. The Government's regional development program recognises in particular the requirements of regions outside the Brisbane metropolitan area.'  
(p. 70)

'The Government facilitates the development of all regions rather than targetting particular regions at the expense of others.' (p. 5)

### (ii) Commercially-driven Development

'The Government believes that it is in the best long term interests of both individual regions and the State as a whole that economic development should be commercially viable in the long term rather than depend on continued government support. For this reason, the Government does not provide assistance to firms to establish in particular regions where there is no fundamental economic basis for them to locate there.' (p. 70)



(iii) Utilising Local Knowledge and Expertise

'...the Government's Regional Economic Development Program and related programs encourage regional bodies to draw on local knowledge and experience to assess their local strengths, identify potential development opportunities and develop sustainable local initiatives.' (p. 70)

(iv) Intergovernmental (State and local) and Interdepartmental Cooperation and Coordination

'The Government's strategy to improve cooperation and coordination with local government, and between State Government departments in terms of improving regional planning, will help business overcome red-tape, and will allow them to more confidently plan for their future directions.' (p. 71)

(v) Regional Unemployment Alleviation

'The Government recognises that some areas of the State suffer higher unemployment than others. Half the Government's record \$3bn Capital Works Program in 1991-92 has therefore been allocated outside the South East corner of the State.' (p. 71)

'As part of its regional economic development strategy, the Goss Government has improved regional services and stimulated regional economies by decentralising Government departments and their decision-making. To date, more than 1,100 public service positions have been moved from Brisbane to other regions.' (p. 71)

'More generally, all Government programs address the needs of individual regions; for example, through targeting TAFE programs and through devolution of government purchasing.' (p. 71)

(vi) Efficient and Effective Public Service Delivery

'The Government has adopted a "back to the bush" focus in its service delivery. The DPI for example established five regions within the State. A regional director in each region is responsible for the delivery of a full range of Departmental services in a manner which best suits the characteristics of each part of the State and the industries involved.' (p. 72)

'To ensure a "strategic policy" capacity and a rigorous approach to policy development, the Department has established a Strategic Policy Unit. The Unit will work closely with Departmental business groups and regional offices to ensure a coordinated approach to the

treatment of issues of major significance to the rural community and the Government, and will provide an important link between other governments, agencies, business groups and the Department.' (p. 73)

DBIRD's Corporate Goal 3 relates specifically to regional economic development, viz.

'To promote and support sustainable regional economic development with an emphasis on improving the international competitiveness of firms throughout the State.'

The relevant program is described as follows:

'The Regional Development and Services Program provides advice, assistance and incentives to manufacturing and traded service companies to support enhanced competitiveness. In a regional context, it provides assistance and organisational support to a wide range of regional economic development organisations, delivers appropriate department-wide services and makes available an industry database.'

Identified as strategies to facilitate the delivery of the above program are:

1. Provide first-stage advisory, referral and information services on departmental and other government assistance for business and industry.
2. Assist Queensland business and industry to adopt the best international management practices to improve international competitiveness.
3. Deliver services to assist the traded services sector in Queensland.
4. Develop regional economic profiles as a basis for public policy directions and targeted delivery of DBIRD's services.
5. Identify and promote major regional projects to potential investors.
6. Provide industry information on manufacturing and traded services enterprises to assist internal and external clients.
7. Ensure regional service delivery, including greater accountability in decision-making in regional offices, reflecting the decentralised nature of DBIRD's client base.
8. Provide for a range of specific regional economic developmental services.

The proposed approach and emphasis of this Study is in line with the current policy directions of the funding body (DBIRD):

- ‘ building the capacity and capability of local communities to cope with change
- harnessing community resources to prove social and economic development initiatives which enhance local and regional competitive strengths
- overcoming impediments to development at the local and regional level’ (Kemp, 1991)

## 1.8 STUDY RATIONALE

As summarised in the original funding submission, an Inception Study such as this serves the purpose of filling in the big picture and identifying key industrial trends and structural changes; it puts an empirical dimension on the current state of play. It identifies a series of broad development options. This type of preliminary study is useful for providing guidelines for designing the economic development strategy proper. It should provide direction for those writing the brief for a major Central Queensland Economic Development Strategy Study, should one eventuate. It presents the views of the CQ community on the preferred development path for this Region.

Inception studies are essentially information gathering and marshalling exercises that provide the basis for preliminary or front-end evaluation. The primary purpose of such a study in the present context is to make policy-makers aware of the key parameters that, in economic development terms, explain:

- (a) What has happened in the past (particularly the recent past) or, in Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis jargon, answer the questions: Where has the Region come from?
- (b) Where is it now? And
- (c) Where is it heading? (Provided nothing is done and the future is allowed to unfold naturally.)

With a belief in the need to create desirable futures, and to accommodate change in a manner that causes least disruption, there is a need to address the two vital subsidiary questions:

- (d) In what manner would the community like to see the Region develop? And
- (e) How can this be achieved?

This Inception Study will provide a sound basis from which to address these two latter questions by:

- (i) providing a reliable and up-to-date statistical profile of the CQ Region and its constituent sub-regions, highlighting the comparative strengths of the overall CQ economy and those of the five sub-regions or economic zones;
- (ii) identifying the development needs and aspirations of the various local and sub-regional communities that make up the CQ Region as defined;
- (iii) horizon scanning to identify opportunities that will generate income, jobs and beneficial linkage and spread effects for the CQ economy; and
- (iv) separating *immediate real potential*; that is, opportunities that are most likely to 'pay off' in the immediate future, as distinct from some nebulous idea of potential that may not be easily converted into positive outcomes.

This Study is based on the same philosophy as the SEQ 2001 Study:

'Consultation plays a vital role in the...project'

and

'The Recommendations of [the Study] will only be effective in the region if they have the support of the wider community. It is therefore extremely important that there is wide consultation and participation built into the project.' (SEQ 2001, Information Kit 1, October 1992)

There is a congruence of interests in tackling regional development in a comprehensive manner. The present Study is predicated on the 'underlying philosophies' enunciated in the Principles of Regionalisation Study carried out by DBIRD's predecessor, the Queensland Bureau of Regional Development (QBRD) in 1990:

'The Government is concerned to foster regional development in order to:

- . promote economic development in line with national and State objectives;
- . capitalise on new opportunities; and
- . minimise the uneven impact of adjustment and decline.’  
(*Principles of Regional Study*, August 1990, Appendix A, Vol. 1, Executive Summary, p. 62)

## 1.9 DEFINITION OF THE CQ REGION

There has to be a clear specification or definition of what constitutes the CQ Region. There are over a hundred different definitions of the CQ Region, with virtually every State Government department having different jurisdictional boundaries. Similarly, different Statutory Authorities (Telecom, ABS, Queensland Tourist and Travel Corporation [QTTC], State Electricity Commission [SEC]), different professional organisations (QCI, AIM), different industry groups (Australian Meat and Livestock Corporation [AMLC], Australian Wheat Board), and different corporations (Suncorp, Westpac) all use different geographic boundaries in their specification of what area constitutes Central Queensland. This is very confusing.

However, Rockhampton is included in all such definitions, but Gladstone is excluded from some. Mackay is excluded from several, being often designated as part of North Queensland. Bundaberg is excluded from most, being invariably included in the Southern Queensland Region. Emerald, despite its proximity to the Tropic of Capricorn, is excluded from some definitions (presumably on the grounds of administrative expediency) and Longreach appears in only a few, being usually included in the sparsely populated Western Queensland Zone.

In some cases, following the ABS Statistical Division terminology, the area embracing Gladstone, Rockhampton and hinterland is referred to as the Fitzroy Region; in others, following the federal electoral boundary terminology, the Capricornia Region.

The case for the clear designation of what should comprise the CQ Region (or CQ Super-Region), for economic development purposes, is a strong one.

It is essential to develop a CQ image and identity. It is important to develop cohesion and to be able to monitor performance. There is a great deal of interdependence between the sub-regions that comprise the CQ Region as defined for this Study, and the Bundaberg Area may well benefit from developing stronger linkages to the north and becoming the sixth sub-region in the CQ Super-Region.

For the purpose of *Statsview-CQ*, the statistical liftout of the quarterly *Central Queensland Journal of Regional Development*, and its predecessor, *Capstats*, Central Queensland was defined as all of the Mackay, Fitzroy and Central West ABS Statistical Divisions, plus Northern Wide Bay-Burnett comprising Bundaberg City itself and the surrounding Shires of Woongarra, Isis, Biggenden, Gayndah, Mundubbera, Eidsvold, Monto, Perry, Kolan, Gooburrum and Miriam Vale.

This area, which coincides with the UCQ sphere of influence, encompasses 43 LGAs and covers an area of 590,593 square kilometres (sq km); that is, 34.2% of the State's area and, as at the August 1991 Census, had a population of 374,118; that is, 12.6% of the State's population.

## 1.10 THE STUDY AREA

The definition of the CQ Region adopted for the purpose of this Study is the region covered by DBIRD-Central, comprising the ABS Statistical Divisions of Mackay, Fitzroy and Central West, *plus* Miriam Vale Shire from the Wide Bay-Burnett Statistical Division. (See Report cover.)

This Region incorporates five sub-regions or economic zones, as follows:

- (i) Rockhampton Area (Sub-Region 1), consisting of Rockhampton City and the Shires of Banana, Fitzroy, Livingstone and Mount Morgan.

The relevant Regional Development Organisation for these five LGAs is the CTDO based at Rockhampton, while Rockhampton & District Promotion & Development Association Inc (RDPDA), also Rockhampton-based, shares responsibility for the development needs of Rockhampton City and the closely aligned Fitzroy and Mount Morgan Shires. Rockhampton Area is part of the Fitzroy Statistical Division.

- (ii) Gladstone Area (Sub-Region 2) comprises the City of Gladstone, Calliope Shire and Miriam Vale Shire.

The regional development interests of these three LGAs are the responsibility of the Gladstone Area Promotion and Development Limited (GAPD) which is based at Gladstone. The City of Gladstone and Calliope Shire are part of Fitzroy Statistical Division, whilst Miriam Vale Shire is part of the Wide Bay-Burnett Statistical Division.

- (iii) The Central Highlands Region (Sub-Region 3) consists of the five Shires of Bauhinia, Duaringa, Emerald, Jericho and Peak Downs, which have united under the recently formed Central Highlands

Promotions and Development Organisation Inc (CHPDO), based at Emerald.

All five LGAs comprising the Central Highlands Region are part of the Fitzroy Statistical Division.

- (iv) The Mackay Area (Sub-Region 4), which coincides with the ABS Mackay Statistical Division, covers Mackay City and the Shires of Belyando, Broadsound, Mirani, Nebo, Pioneer, Sarina and Whitsunday; that is, eight LGAs in all.

Mackay Regional Development Bureau Inc (MRDB), based at Mackay, represents these eight LGAs.

- (v) The Central West Region (Sub-Region 5) is identical to the ABS Central West Statistical Division. It consists of the Shires of Aramac, Barcaldine, Barcoo, Blackall, Boulia, Diamantina, Ilfracombe, Isisford, Longreach, Tambo and Winton; that is, eleven LGAs in all.

The vast area covered by these eleven LGAs is represented by the recently formed Remote Area Planning and Development Board (RAPDB), based at Longreach.

For the purposes of this Study, data has been compiled on a sub-regional or economic zone basis. These sub-regions or economic zones are voluntary alignments of LGAs that have common interests and who perceive clear advantages in being represented by their own sub-regional development bodies in which they are, in the main, active participants.

So, the target area for this Study consists of 32 Shires, covers a total area of 564,539 sq km; that is, 32.7% of the total area of Queensland; and, at the August 1991 Census, had a total population of 298,732, which amounted to approximately 10% of the State's population.

*The fact that the CQ Region as defined contains only one-tenth of the State's population should not be taken as an indicator of the comparative economic significance of this Region. This is an especially resource rich Region, with the highest per capita export revenue earning capacity of any region in Australia.*

## 1.11 STUDY MANAGEMENT

Figure 1.1 depicts the organisational arrangements for conducting the Study.

The UCQ was assigned responsibility for overseeing the conduct of the Study with the Director, DBIRD-Central, Mr Brad Carter, the Vice-Chancellor, UCQ, Professor Geoff Wilson, or his deputy, and the CTDO's Chief Executive Officer, Mr Rod Stendrup, all being members of the Study's Management Committee according to the conditions attaching to the grant.

Mr Graham Bloxsom, Regional Manager, Queensland Confederation of Industry (QCI), and Mr Ken Dooley, Senior Lecturer, Faculty of Business, UCQ, accepted invitations to be members of the Study's Management Committee. The Study's Project Manager, Mr Liam Ryan, Senior Lecturer, Faculty of Business, reported to, but was not a voting member of, the Study's Management Committee.

It was agreed that from time to time, if the need arose, invitations could be extended to other parties to join the Management Committee.

The Consultative Committee, in compliance with the conditions attaching to the DBIRD grant, had to represent the interests of the broader CQ community. It was agreed that the Regional Development Officers (RDOs) (or managers), representing the five sub-regions should comprise the Consultative Committee: each member of the Committee should be kept informed on the Study's progress and should be consulted on any critical issues that might arise. It was deemed appropriate that the Project Manager should chair this Committee when it met for a one-day Workshop towards the completion of the Study. (See Figure 1.1)

## 1.12 STUDY DESIGN AND TIMEFRAME

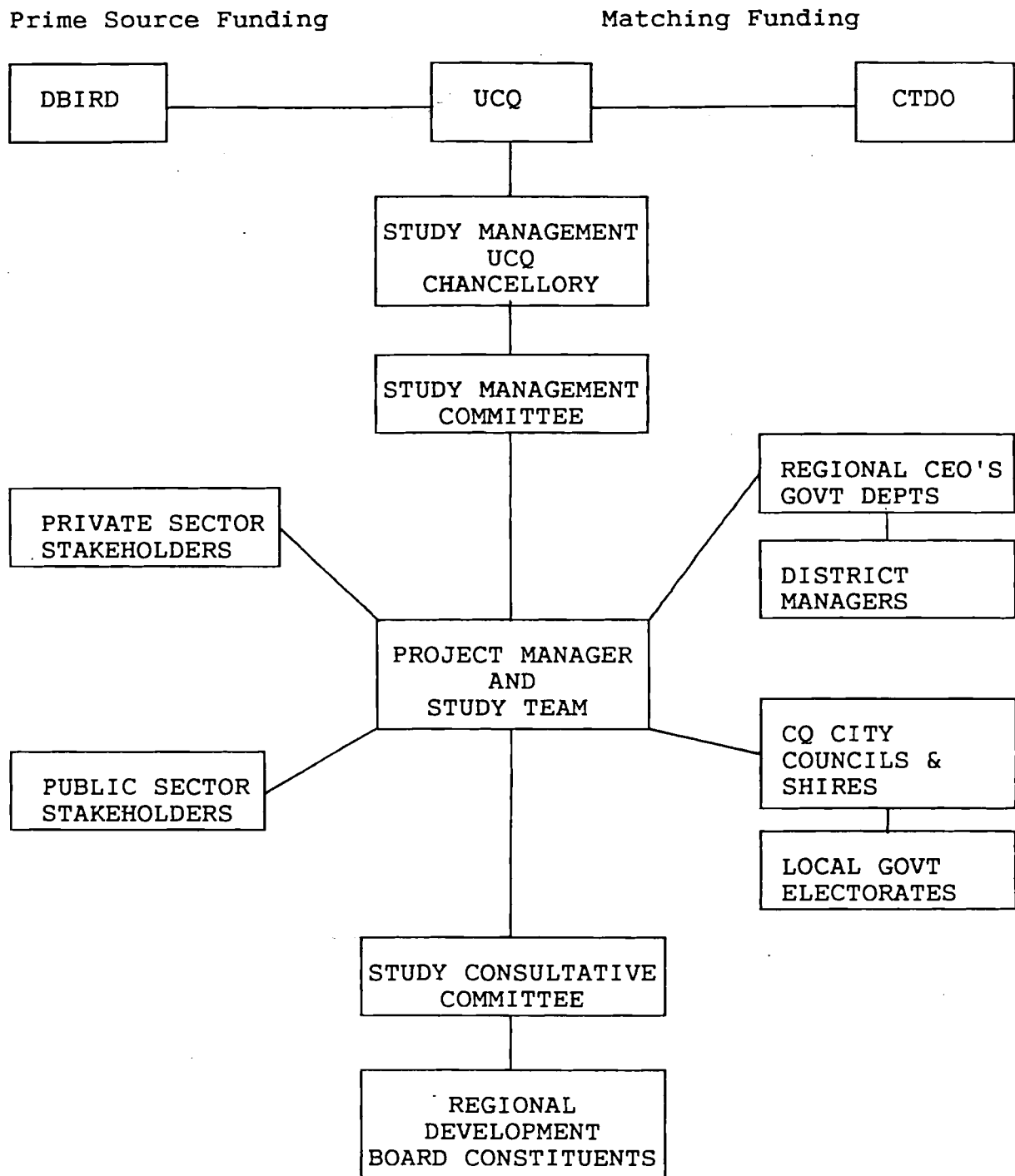
### 1.12.1 A CONSULTATIVE APPROACH

The predominant consideration influencing the Study's design was to ensure that effective consultation with the regional community was instigated and was maintained throughout the Study.

As a result, a 'bottom up' consultative approach was adopted whereby, through direct contact with key players, small community groups, LGAs, Regional Development Organisations, professional and community organisations and regional and sub-regional State Government departmental officers, a good communication network was established.



**FIGURE 1.1: ORGANISATIONAL CHART:  
CQ REGIONAL ECONOMIC DEVELOPMENT STRATEGY STUDY  
MANAGEMENT**



Commencing with direct Study Team involvement as facilitators in four of the Future Search Workshops conducted in the Central West Region, regular feedback was provided in the form of details of the objectives, the timeframe and the Terms of Reference of the Study, the distribution of progressively updated Statistical Profiles on a sub-regional and LGA basis, sub-regional summaries of Future Search Workshops (Central West and Central Highlands), the key findings of 'Needs and Opportunities' Survey, the preliminary findings of Private Sector and Public Sector in-depth structured interviews, a summary of conclusions from the Consultative Committee Workshop and the Public Workshop and regular fax and telephone contact on specific projects and issues.

#### **1.12.2 STATISTICAL PROFILES: 1 MARCH - 30 JUNE 1992**

The first task addressed by the Study was to assemble a comprehensive Statistical Profile for the CQ Region (where possible on an LGA basis) and to arrange and analyse key demographic and economic data on a sub-regional basis where sub-regions did not coincide with ABS Statistical Divisions. This is the first time that these data have been made available on a sub-regional basis for the Central Highlands Region and the Rockhampton and Gladstone Areas, as statistics for these areas were previously amalgamated under the Fitzroy Statistical Division. Also, because the Gladstone Area straddles the Statistical Divisions of Fitzroy and Wide Bay-Burnett, no area-specific data were available.

In addition, this was the first time the sub-regions had access to key demographic and economic indicators that showed sub-regional and LGA performance as a percentage of the CQ Region and of the State. On the basis of feedback received, these Statistical Profiles were deemed to be very valuable and informative. (See Background Report No. 1 [BR.1])

#### **1.12.3 THE STUDY AGENDA: 1 JUNE - 18 DECEMBER 1992**

Initially, the Study Agenda was divided into six phases. The Final Study Report was scheduled for release on 18 December 1992. The schedule was maintained up to Friday, 31 July 1992, the end of Stage 3.

At that point it was deemed necessary to considerably expand the Study Brief to incorporate in-depth interviews with key private and public sector stakeholders and to assemble and interpret global commodity projections for the main CQ commodities, viz coal, beef, grain, wool, sugar, cotton and minerals.

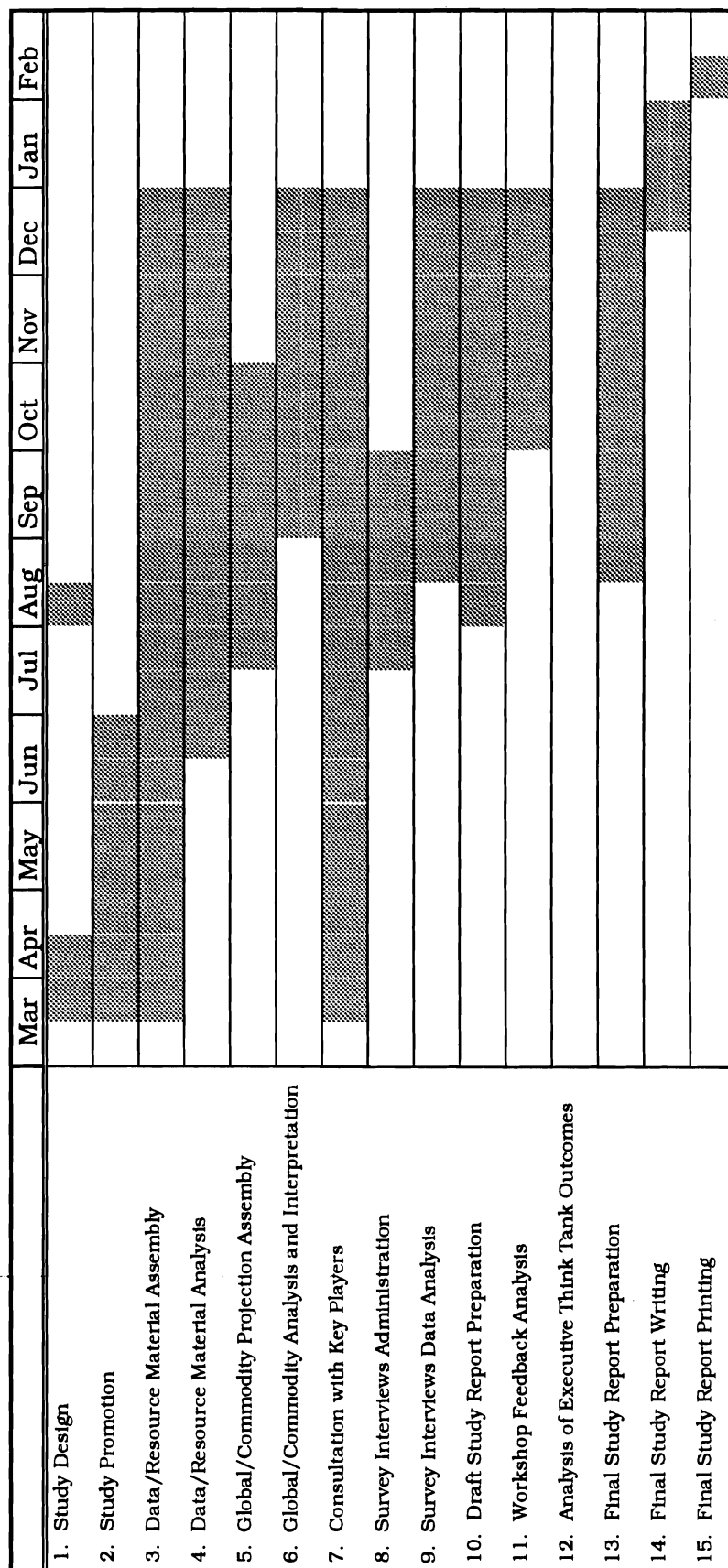
To complete this additional research, which took the Study well beyond the 'Inception Study' category, an extension of five weeks was sought and granted.

A revised Study Agenda was agreed and has been maintained on schedule. (See Figure 1.2)

# CQ DEVELOPMENT STRATEGY STUDY ACTIVITY PLAN

MARCH 1992 - FEBRUARY 1993

**Figure 1.2: Study Schedule**



### 1.13 STUDY METHODOLOGY

There are many techniques used in regional economic development studies, including input-output analysis, cost-benefit analysis, economic base theory, shift and share analysis, population projections, industry projections, gravity modelling, location theory, economic impact assessment, SWOT analysis, engine of growth theory, income multiplier theory, environmental impact assessments and the Future Search Workshop issue identification and priority ranking technique.

In relation to specific projects or initiatives, SWOT analysis, economic feasibility assessment, business, financial and market planning and locational modelling and sensitivity testing may be the more appropriate instruments to use in order to contain the front-end research costs within reasonable dimensions.

Instruments used to elicit qualitative information, including viewpoints or opinions, include self-administered questionnaires, interviewer-administered questionnaires, workshops, thinktanks and brainstorming sessions; all of these instruments have been used in the course of the present Study.

Assembling, analysing, tabulating and interpreting key demographic and economic data, particularly locating and arranging and interpreting previously unpublished data in a manner that provides valuable input to the decision-making process, is a time consuming and costly exercise.

On the assumption that the better the quality of the factual information at the respondent's disposal, the more informed and strategically attuned the responses will be, the provision of regular feedback throughout the course of the Study was considered to be very important.

This Study relied on population and industry projections from reputable sources. Whilst population projections and industry trend analysis data were disseminated to Consultative Committee members before the final consultative phase, the specific industry projections were not, due to non-availability at the time. However, it was evident that most key players were, in a fairly general sense, familiar with the future prospects for key CQ export industries, most of which are given reasonably analytical coverage in the local media on a regular basis.

The Study was not predicated on a preference for any particular economic growth/development strategy although it does comment on the relative merits of balanced versus unbalanced growth and the dangers of a too narrow export commodity base orientation.

The Study refers to the findings of recent input-output studies for the relevant CQ Statistical Divisions that throw light on the relative importance of various service industries, an issue not specifically canvassed by the present Study.

The overall approach adopted was designed to elicit from a representative cross-section of the CQ community a set of strategic directions that would contribute to the continued economic growth and diversification of the CQ Region in a manner that accords with commonsense in providing an acceptable balance between economic well-being and quality of life considerations.

In line with strategy studies in general, the first task addressed was to provide a thorough analysis and review the existing situation with a view to identifying regional development opportunities as well as retarding factors or barriers. This may be termed horizon scanning.

The next phase involved providing a ranking of policy options (projects and initiatives) that merited further in-depth investigation and canvassing their feasibility and the associated costs and benefits. This is termed the evaluation phase.

The survivors of this second phase provided the key elements or policy strands of the proposed strategy. This is termed the strategy formation phase.

In the present context, the focus was on providing informed community-wide input for policy development by articulating the nature of existing opportunities and constraints. In this sense, the process is capable of providing valuable strategic directions for policy development and leads to smoother implementation.

#### 1.14 STUDY REPORTING

This Study is reported as follows:

1. A Final Report titled 'Strategic Directions', which summarises the findings of the Study's nine Background Reports.
2. An Executive Summary titled 'Strategic Directions'.
3. Background Report No. 1 (BR.1), *Statistical Profiles: Central Queensland Region, Sub-Regions and Local Government Areas (Councils and Shires)*.
4. Background Report No. 2 (BR.2), *Future Search Workshop Summaries: Central Highlands and Central West*.
5. Background Report No. 3 (BR.3), *Central Queensland Needs and Opportunities (Attitudinal) Survey Report*.
6. Background Report No. 4 (BR.4), *Private Sector Stakeholder Survey Report*.

7. Background Report No. 5 (BR.5), *Central Queensland Public Sector Regional Chief Executive Officer Survey Report.*
8. Background Report No. 6 (BR.6), *Study Consultative Committee Workshop Report.*
9. Background Report No. 7 (BR.7), *Study Public Workshop Report.*
10. Background Report No. 8 (BR.8), *Manufacturers and Specialist Service Providers Survey Report.*
11. Background Report No. 9 (BR.9), *Miriam Vale Regional Economic Development Strategy Study Report.*

#### 1.15 ACKNOWLEDGMENTS

The Study Management Committee gratefully acknowledges the assistance, advice and time generously given by a large number of people throughout the CQ Region in the course of carrying out this year-long Study.

In particular, the RDOs/managers who comprised the Study's Consultative Committee provided extremely valuable input towards identifying strategic directions that will assist in setting the course for the future economic development of this richly endowed Region.

Among the many organisations who assisted with this Study, the following have been singled out for particular mention: the ABS, Brisbane Office, the Australian Bureau of Agricultural Resource Economics (ABARE), the Queensland Department of Primary Industries (QDPI), Rockhampton, the Department of Housing and Local Government, the Department of the Premier, Economic and Trade Development, and, of course, DBIRD-Central and Brisbane office.

The Management Committee's gratitude is extended to the City Councils and Shires of the CQ Region who provided the Study Team with encouragement and willing assistance in executing this Study, and the Gladstone Port Authority for supplying projections of port cargo throughput.

And, finally, the Management Committee congratulates the Project Manager and the Study Team for doing such a fine job.

## 1.16 REFERENCES

Department of Business, Industry and Regional Development, *Strategic Plan 1991-96: Overview*, undated, circa June 1991.

Goss, W. MLA (The Hon.), *Queensland Leading State: State Economic Development Policy*, Government of Queensland, April 1992.

Kemp, D.C., Australian Approaches to Regional Economic Development, Paper presented to Pacific Regional Science Conference, Cairns, 8-11 July 1991.

Queensland Bureau of Regional Development (Study Team Report), *Principles of Regionalisation Study*, Vol. 1, Executive Summary, August 1990.

SEQ 2001, *Information Kit 1*, October 1992.

Smith, G. (The Hon.), Opening Address to Pacific Regional Science Conference, Cairns, 8 July 1991.

University of Central Queensland Submission to the Department of Business, Industry and Regional Development, for financial assistance under the Regional Economic Development Program, to carry out a Central Queensland Regional Economic Development Strategy Inception Study.

## **SECTION 2**

**THE CENTRAL QUEENSLAND COMMODITY RESOURCE BASE:**

**UNLIMITED POTENTIAL**



## **2.0 THE CENTRAL QUEENSLAND COMMODITY RESOURCE BASE**

### **2.1 INTRODUCTION**

It is widely acknowledged that the CQ Region as defined has a particularly rich resource base. It is a vast Region, covering 564,539 square kilometres (sq km); that is, approximately one-third of the State's area. Straddling the Tropic of Capricorn, it is bounded by the Great Barrier Reef to the east and the Northern Territory border to the west; it stretches from the top of Whitsunday Shire in the north to the bottom of Miriam Vale Shire in the south.

At the August 1991 Census, the Region contained one-tenth of the State's population, with the heaviest concentrations in the coastal centres of Rockhampton, Gladstone and Mackay, but becoming increasingly sparse with distance westward from the coast. (Refer Section 3 for details.)

As one would expect, the quality of service and infrastructure provision diminishes with distance westward from the major coastal centres and the tyranny of distance and comparative isolation tend to take their toll, both economically and socially.

### **2.2 CQ COMMODITY PRODUCTION: OVERVIEW**

Figure 2.1 shows that, in terms of 1990-91 value of commodity production, coal is clearly dominant, with a massive 66.3% share. Cattle Disposals (the beef industry), often perceived as the CQ Region's major industry, holds a 13.9% share, followed by sugar (5.2%), grain (4.1%), wool (3.1%), seafood (2.5%), metallic and non-metallic minerals (1.6%), Other (which includes dairy produce, timber, fruit and vegetables) (1.9%), cotton (1.3%) and construction materials (which include limestone, crushed and broken stone and other quarry materials) (0.8%).

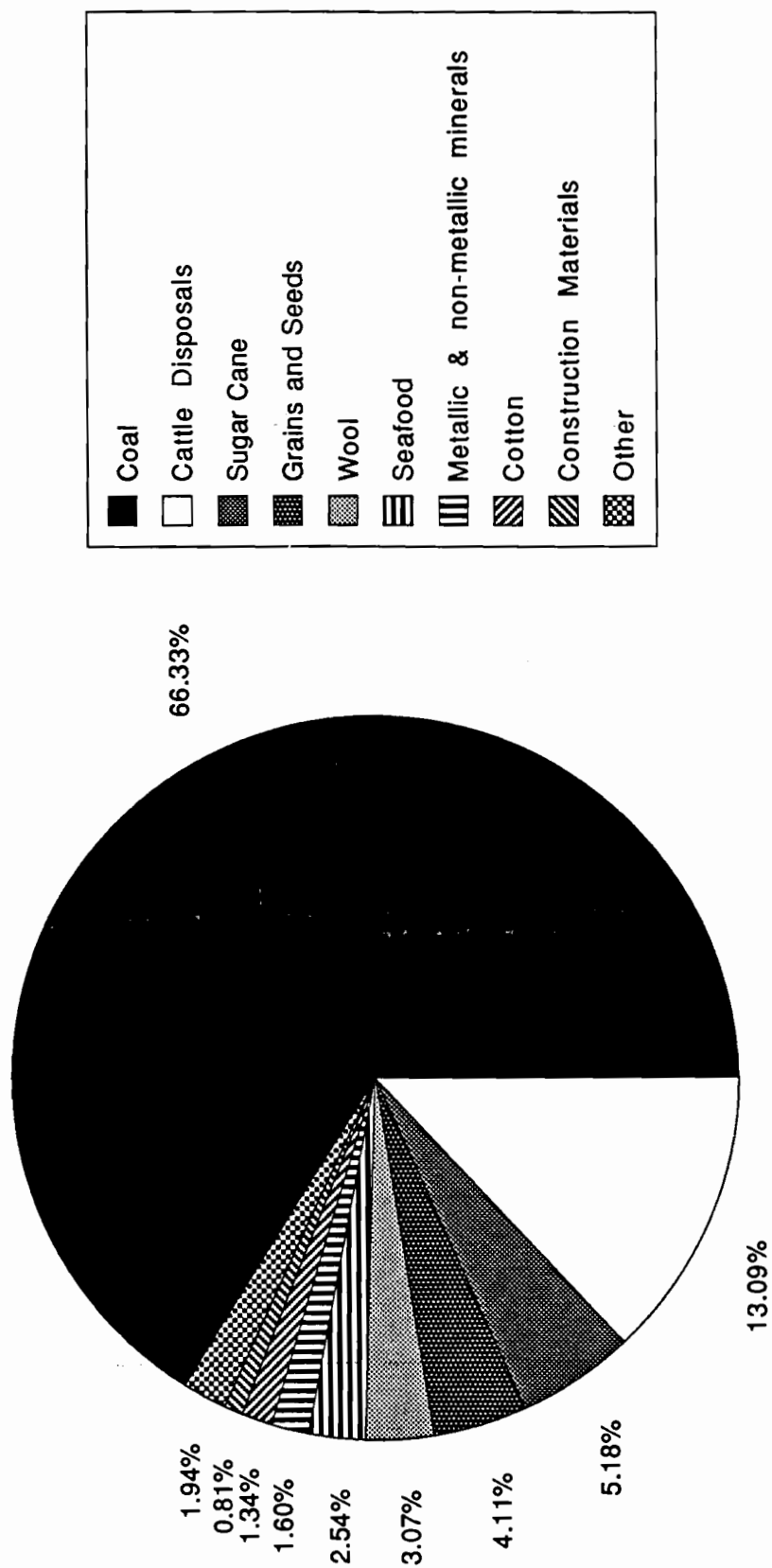
The imbalance in this commodity mix is evident from the fact that coal accounts for approximately two-thirds of Central Queensland's commodity production value. Significantly, CQ coal production accounts for 80% of the State's total and 87% of Queensland's coal exports.

Coal is clearly Central Queensland's 'flagship' industry and, on the basis of industry projections and the number of new projects coming on line, it is poised to increase its dominance to between 72% and 75% of total CQ commodity production value by 1997.

Central Queensland's second major industry, beef production, is also a major export income earner with some 60% of Australian beef being sold to overseas buyers.

Sugar, Central Queensland's third ranked commodity in terms of production value, is again a major export commodity item, with some 78% of total production being exported.

FIGURE 2.1: ESTIMATED VALUE OF CQ PRIMARY COMMODITY PRODUCTION - 1990-91 (\$'000)



Other : Dairying (0.39%), Pig Disposals (0.31%), Fruit (0.23%), Sheep and Lamb Disposals (0.22%), Other (0.79%)

Grains and seeds, the fourth ranked industry category, is likewise strongly export-oriented, with approximately 30% of Australian wheat production sold on export markets.

Likewise wool, with fifth ranking, is produced predominantly for export purposes, with Australia supplying 32% of the world's raw wool in 1990-91, with an export value in excess of \$3 bn. Seafood, ranked sixth, has a well-established export market. The bulk of cotton and other minerals, ranked seventh and eighth respectively, is exported.

*The picture that emerges is that the CQ Region is a massive contributor to the Queensland and Australian economies in terms of export-earnings it generates - a contribution that is most valuable given Australia's persistent Balance of Payments problems and high foreign debt with its associated burdensome debt servicing problems from current Gross Domestic Product (GDP).*

Table 2.1, *inter alia*, provides a detailed breakdown of the 'Other' category, which accounts for the residual 1.9% of total value of commodity production.

However, all of the top export-oriented production categories shown in Figure 2.1 and detailed in Table 2.1 are capital intensive, as either no processing of these commodities occurs in the Region (coal and wool), or only primary stage processing takes place. The commodity export orientation means that Central Queensland misses out on the high value-adding processing stages and thereby forfeits export income and business and job opportunities.

A great deal of emphasis is being currently placed on adding value to these staple CQ export commodities as a means of creating more business and job opportunities.

*The message is clear for Central Queensland as it is for Australia: value-adding, wherever it is economically feasible, must be encouraged and systematically developed. It is encouraging to observe that in Central Queensland at present a concerted effort is being mounted to 'do it ourselves', already captured in the mottoes 'CQ Can Do' or 'Can Do In CQ'.*

From a regional economic development standpoint, there are some drawbacks in having a strong commodity export dependency:

- . International commodity prices tend to be notoriously unstable.
- . Significant unfavourable exchange rate fluctuations can undermine producers' confidence.
- . Dominant buyers can exercise excessive control in the negotiation of contract prices.

**TABLE 2.1: ESTIMATED VALUE OF CQ PRIMARY COMMODITY  
PRODUCTION (\$'000)**

	Total 1986-87 (\$'000)	Total 1990-91 (\$'000)	Absolute Change (\$'000)	% Change
Coal	2386992	2611537	224545	9.41
Cattle Disposals	380966	515235	134269	35.24
Sugar Cane	187461	203888	16427	8.76
Grains and Seeds	87336	161927	74591	85.41
Wool	100345	120672	20327	20.26
Seafood *	90000	100000	10000	11.11
Metallic and other	62895	62915	20	0.03
Non-Mettalic Minerals				
Cotton	22684	52584	29900	131.81
Construction Materials **	21031	31816	10785	51.28
Other	56098	76433	20335	36.25
Breakdown - Other				
Dairying	12432	15349	2917	23.46
Pig Disposals	7348	12206	4858	66.11
Total Fruit	10755	8906	-1849	-17.19
Sheep and Lamb Disposals	9700	8740	-960	-9.90
Hay - Crop and Pasture	5538	7615	2077	37.50
Log Timber	N/A	6419	-	-
Egg Production	2921	5024	2103	72.00
Other Crops (NEI) #	3715	5642	1927	51.87
Vegetables	2885	4636	1751	60.69
Peanuts	468	1692	1224	261.54
Honey and Beeswax	336	204	-132	-39.29
Total - other	56098	76433	20335	36.25
TOTAL	3395808	3937007	541199	15.94

# Not Elsewhere Indicated

\* Estimation due to lack of specific data

\*\* Actual 1990-91 figure fell short of projection by \$8.5m

SOURCES : Qld Govt. Mining Journal, Qld. Dept. of Resource Industries,  
ABS Value of Agricultural Commodities Produced, Qld. Dept. of Primary Industries,  
Qld. Fish Management Authority, ABS Sawmill Statistics Cat.No.8206.3

Due to Australia's small population and comparative lack of bargaining strength, this country can easily become the victim of trade wars between super economies like the US and the European Community (EC) and, due to national, customs union or regional trade alignment protectionist or export enhancement policies, can lose markets that could have been serviced competitively. These disruptions would tend to have a magnified effect on the CQ economy.

- . Monopolistic or oligopolistic practices by shipping companies can result in excessive transport prices when not confronted with consortia of exporters.
- . Industrial stoppages on the waterfront can ruin service delivery reputations and cause overseas buyers to turn to more reliable suppliers.
- . Prolonged periods of international hostility can disrupt the flow of commodities, even if the exporting nation is not involved in such conflicts.

These potential disruptive factors aside (which are not peculiar to Australia), Central Queensland is exceptionally fortunate in having:

- (i) such a rich natural resource endowment
- (ii) well developed transport, energy and water infrastructure to service these export-oriented production activities
- (iii) a good reputation as a top quality supplier
- (iv) a stable and supportive political environment to maintain a high level of confidence in regularity of supply; and
- (v) a very favourable location for servicing the fast-growing Northeast Asian Region - the fastest growing region in the world - which needs our products and has the wherewithal to pay for them.

The fact that Central Queensland's most important primary sector commodities identified in Figure 2.1 in order of importance as coal, beef, sugar, grain and seeds, wool, seafood and cotton are all dominantly export-oriented, has important implications for the future growth and development of this Region.

Towards the end of this Section, using the latest available statistics and projections, all major industries will be individually discussed in some depth, and Central Queensland's stake in each of these industries in terms of value of production and export share will be highlighted.

This industry-specific analysis will provide a firm basis for assessing the Region's future economic development prospects.

But firstly, the commodity resource base of each of the five sub-regions will be examined separately.

## 2.3 COMMODITY RESOURCE BASE BY SUB-REGION

An examination of commodity production value by sub-region demonstrates the strengths of particular regions, how dependent some sub-regions are on particular commodities and, in some cases, how narrow their economic bases are.

### 2.3.1 INTRODUCTION

The sub-regional boundaries, as depicted on the Report Cover, are discussed in Sub-Section 1.7.

The purpose of providing an outline of the commodity resource base of each sub-region is to provide a factual context within which to assess:

- (i) the elements of the regional development strategies identified by the communities of each sub-region;
- (ii) the facts and insights gleaned from the various background studies that are relevant to each sub-region; and
- (iii) the recent trend and future prospects analysis of Central Queensland's seven main commodity-based industries analysed separately in-depth in this Section.

### 2.3.2 ROCKHAMPTON AREA: SUB-REGION 1

Rockhampton is the major service centre of Central Queensland. Figure 2.2 shows that coal accounts for 65.5% of the total value of commodity production for the Rockhampton Sub-Region.

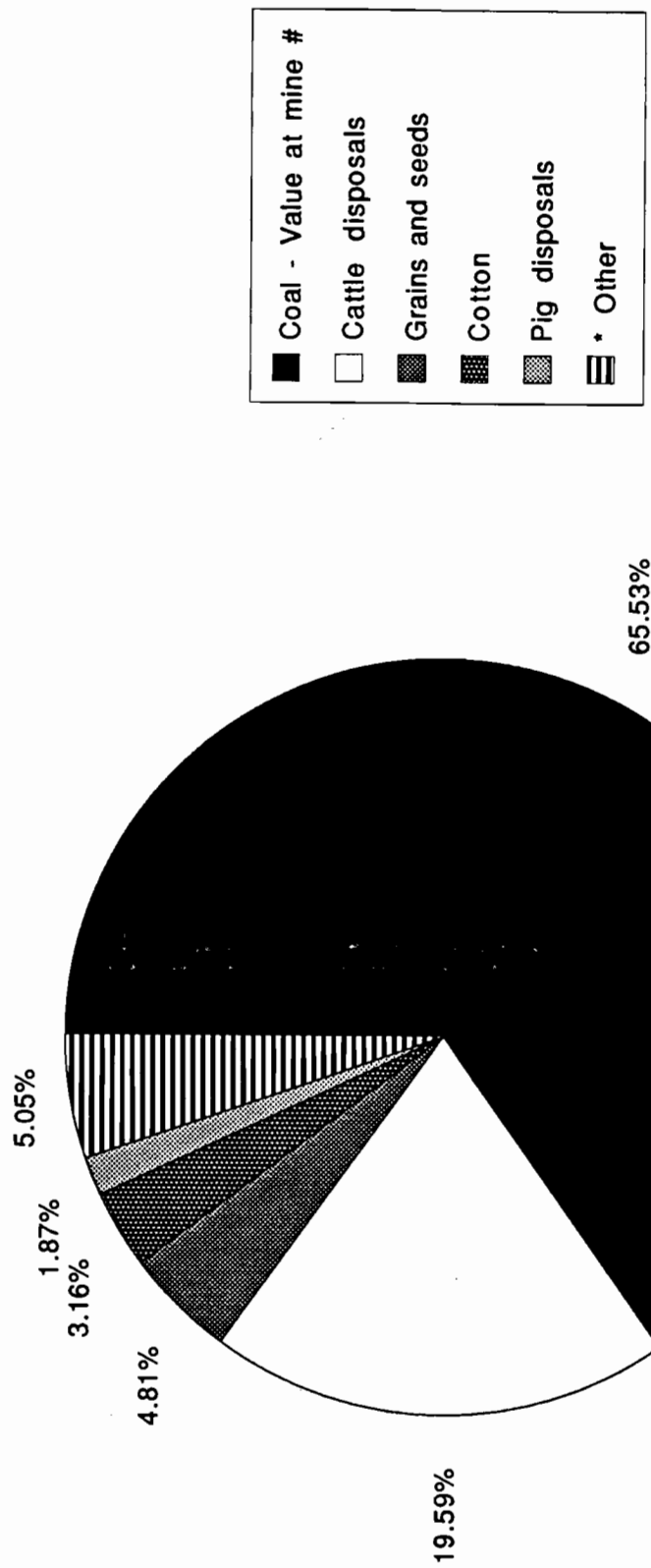
The beef industry ranks second, with a 19.6% share.

Third ranked is grain and seeds, with 4.8% of the total.

Next in order of importance are cotton (3.2%) and pig disposals (1.9%). The 'Other' category, accounting for 5.1% of the total, includes fruit (1.18%), lucerne and other fodder crops (1.16%), egg production (0.72%), vegetables (0.53%) and miscellaneous (1.46%).

Although commodity production is fairly diversified, two commodities, coal and beef, account for 85% of total commodity production value for the sub-region.

FIGURE 2.2: ESTIMATED VALUE OF ROCKHAMPTON AREA PRIMARY COMMODITY PRODUCTION  
1990-91



Other: Fruit (1.18%), Lucerne and other fodder crops (1.16%), Dairying (0.85%), Egg prod. (0.72%), Vegetables (0.53%), Misc. (0.61%)

Table 2.2 shows steady growth for all commodity items between 1986-87 and 1991-92, with coal alone accounting for \$65 million of the \$103.5 million increase.

**TABLE 2.2: ESTIMATED VALUE OF ROCKHAMPTON AREA PRIMARY COMMODITY PRODUCTION**

	Total 1986-87 (\$,000)	Total 1990-91 (\$,000)	Absolute Change (\$'000)	% Change
Coal - Value at mine #	267,000	332,000	65,000	24.34
Cattle disposals	76,614	99,251	22,637	29.55
Grains and seeds	22,220	24,361	2,141	9.64
Cotton	9,244	15,989	6,745	72.97
Pig disposals	5,521	9,461	3,940	71.36
* Other	22,519	25,608	3,089	13.72
<b>TOTAL</b>	<b>403,118</b>	<b>506,670</b>	<b>103,552</b>	<b>25.69</b>

\* Other 1986-87 (Fruit (6903), Hay-crop and pasture (4517), Vegetables (2059); Etc.)

\* Other 1990-91 (Fruit (5993), Hay -crop and pasture (5905), Dairying (4286),  
Egg production (3637), Vegetables (2686); Etc)

# Estimation based on tonnages

Sources : ABS Value of Agricultural Commodities Produced,  
Qld. Coal Board 40th Annual Review, Qld Dept. of Mines Annual Reports

### 2.3.3 GLADSTONE AREA: SUB-REGION 2

Gladstone, endowed with a magnificent natural deep-water harbour, is Central Queensland's major port and industrial centre. Its major strengths lie in its heavy industrial base and excellent bulk commodity port facilities. The Gladstone Area has well-developed and expanding manufacturing and service sectors.

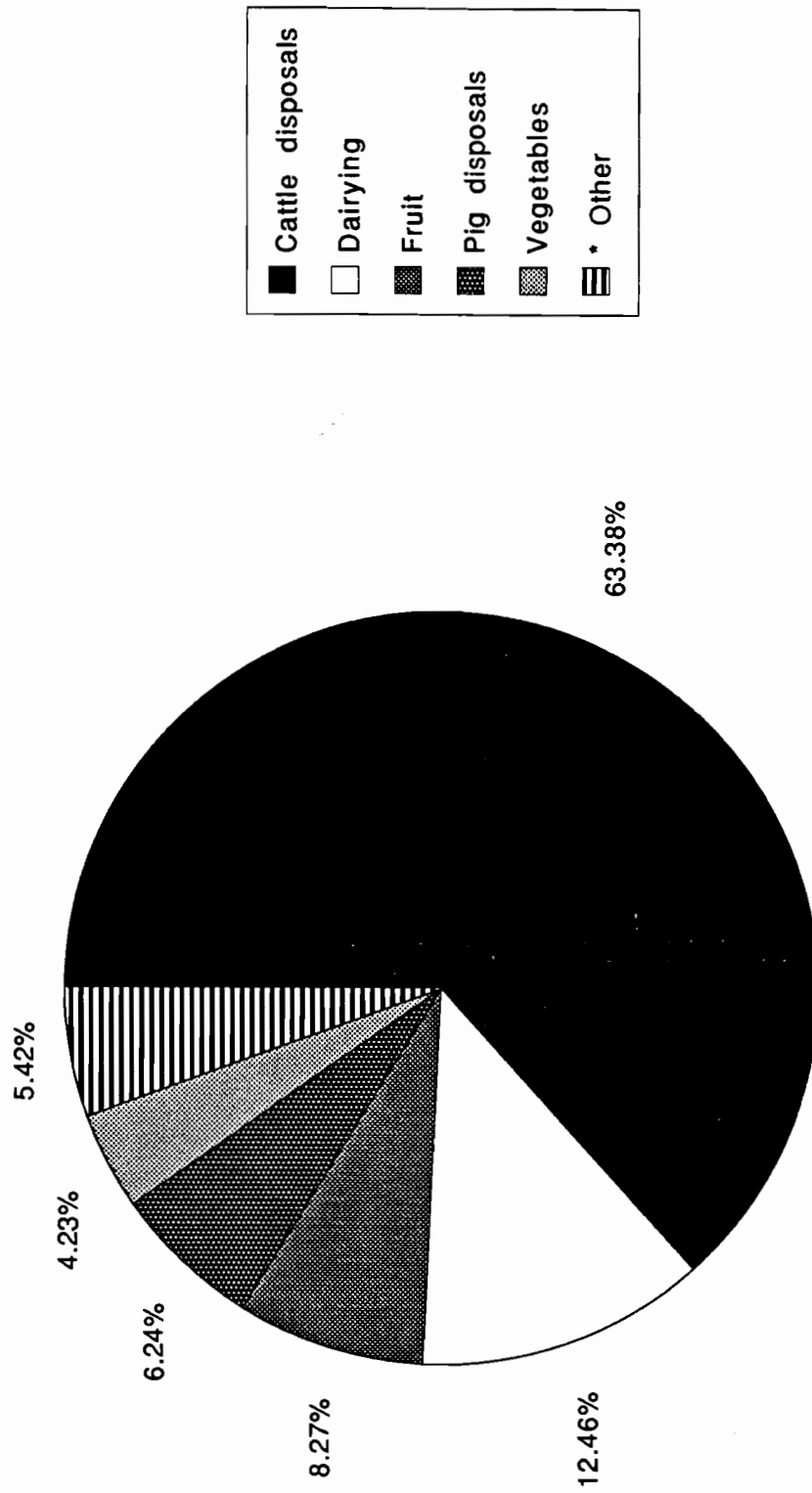
Figure 2.3 shows that cattle disposals clearly dominates the agricultural commodity base, with 63.4% of total value of commodity production in 1990-91.

Dairying gets second highest ranking, with 12.5% of the total.

Next in order of importance are fruit (mainly paw paws) (8.3%), pig production (6.2%), vegetables (4.2%) and 'Other', including poultry and eggs, (5.4%).



FIGURE 2.3: ESTIMATED VALUE OF GLADSTONE AREA PRIMARY COMMODITY PRODUCTION  
1990-91



\* Other : Nurseries (3%), Cultivated Turf (1.6%), Lucerne and other fodder crops (0.75%), Miscellaneous (0.07%)

Again, two major commodities dominate, with cattle disposals and dairying together accounting for 75.5% of total commodity production value.

The commodity mix, however, is diversified and is significantly different from that of the Rockhampton Area, indicating strong complementarity.

Table 2.3 shows that the major source of the \$6.9 million increase in value of production between 1986-87 and 1990-91 was the beef industry, with an increase of \$4.6 million.

**TABLE 2.3: ESTIMATED VALUE OF GLADSTONE AREA PRIMARY COMMODITY PRODUCTION**

	Total 1986-87 (\$,000)	Total 1990-91 (\$,000)	Absolute Change (\$'000)	% Change
Cattle disposals	15,631	20,245	4,614	29.52
Dairying	3,256	3,980	724	22.24
Fruit	3,531	2,643	-888	-25.15
Pig disposals	997	1,993	996	99.90
Vegetables	641	1,351	710	110.76
* Other	961	1,730	769	80.02
<b>TOTAL</b>	<b>25,017</b>	<b>31,942</b>	<b>6,925</b>	<b>27.68</b>

\* Other 1986-87 (Poultry disposals (342), Lucerne and other fodder (223), Grains and seeds (185), Other crops - not elsewhere indicated (183) ; Etc.)

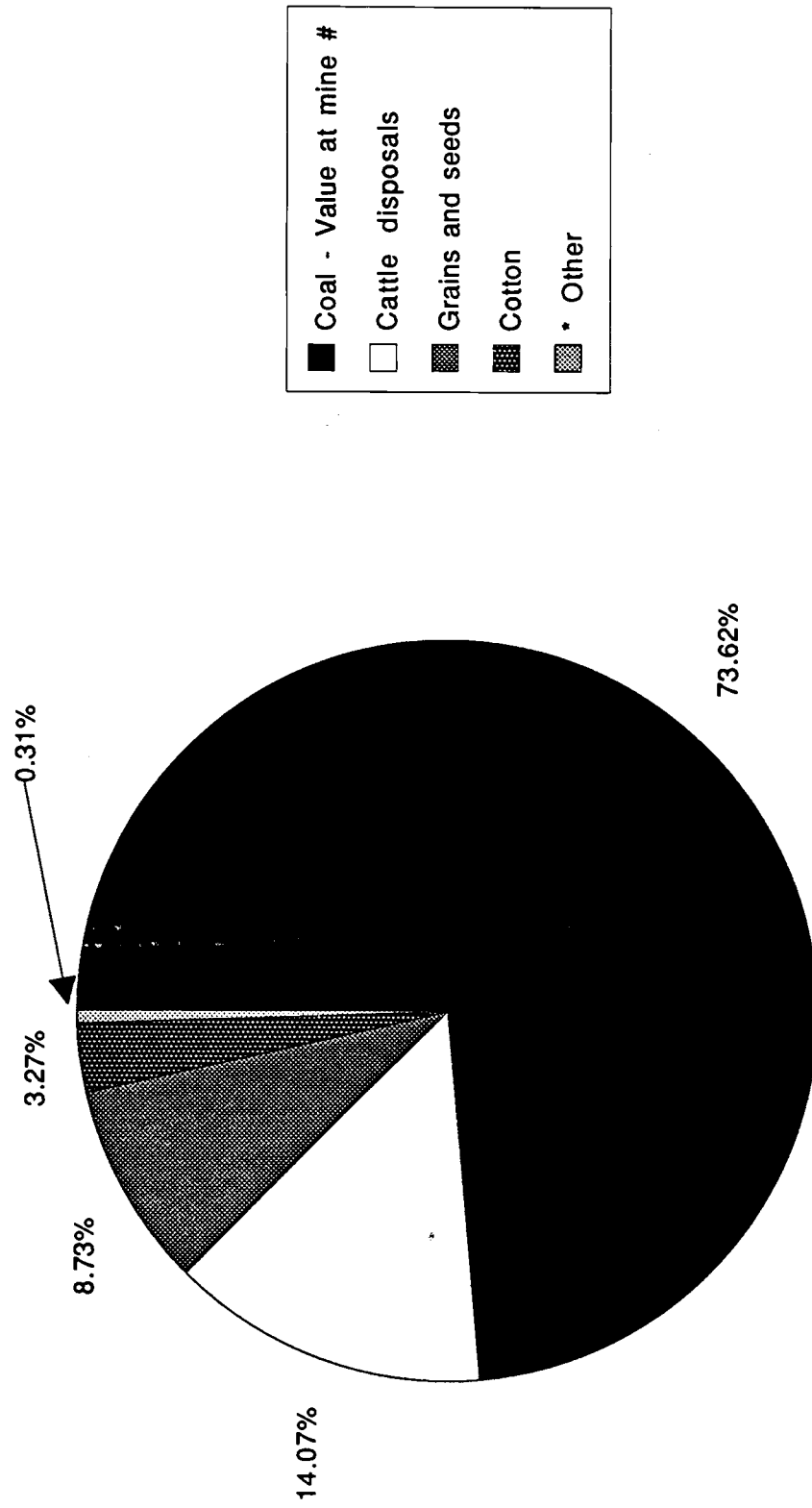
\* Other 1990-91 (Nurseries (960), Cultivated turf (526), Lucerne and other fodder (241), Grains and seeds (36) ; Etc.)

Source : ABS Value of Agricultural Commodities Produced

#### 2.3.4 THE CENTRAL HIGHLANDS AREA: SUB-REGION 3

This traditionally cattle grazing and grain growing area is extremely rich in high quality coal reserves. Figure 2.4 demonstrates that coal, with 73.6% of total value of commodity production, dwarfs other commodity production activities, of which there are very few.

FIGURE 2.4: ESTIMATED VALUE OF CENTRAL HIGHLANDS AREA PRIMARY COMMODITY PRODUCTION  
1990-91



Other : Peanuts (0.12%), Lucerne and other fodder crops (0.07%), Vegetables (0.04%), Miscellaneous (0.08%)

Cattle disposals ranks second, with 14.1%, and grain and seed production third, with 8.7%.

Cotton grown in the Emerald area accounts for 3.3% of the total. Minor crops accounting for the remaining 0.3% include peanuts (0.12%), hay (0.07%) and fruit and vegetables (0.04%).

Table 2.4 shows that of the \$150.6 million increase in value of commodity production between 1986-87 and 1990-91, beef accounted for \$56.6 million and coal \$23 million.

Again, two commodity dominance is clearly evident, with the coal and beef industries accounting for approximately 88% of total commodity production value.

#### **2.3.5 MACKAY AREA: SUB-REGION 4**

Mackay has traditionally been a sugar growing region (coastal) with the cattle industry being traditionally important in the hinterland. Coal production now swamps all other commodity production activities with a massive 79.3% of the total value of commodity production, as depicted in Figure 2.5.

Next in order of importance is sugar, with 11% of the total. The beef industry accounts for only 6.9% and the grain and seeds industry 2.2%. The residual, 0.6%, is made up of dairying (0.34%), egg production (0.07%), pig production (0.04%) and vegetable production (0.04%).

Once again two commodities, this time coal and sugar, together account for 90.3% of total commodity production value.

Table 2.5 demonstrates that value of coal production grew by 10.4% between 1986-87 and 1990-91, while value of beef production grew by 35%, and value of grains and seeds, coming from a very small base, by 178.9%.

#### **2.3.6 THE CENTRAL WEST AREA: SUB-REGION 5**

Traditionally, the Central West has been a major wool and beef producer and so it remains today, as clearly shown in Figure 2.6.

Wool, with 49.8% of total commodity production value, and beef, with 46.4%, are the only two significant commodities produced in the Central West Sub-Region.

Here is a classic dual economy in terms of commodity production with the virtual complete absence of diversification or value-adding in the primary commodity production sphere.

**TABLE 2.4: ESTIMATED VALUE OF CENTRAL HIGHLANDS AREA  
PRIMARY COMMODITY PRODUCTION**

	Total 1986-87 (\$,000)	Total 1990-91 (\$,000)	Absolute Change (\$'000)	% Change
Coal - Value at mine #	795,000	818,000	23,000	2.89
Cattle disposals	99,721	156,364	56,643	56.80
Grains and seeds	50,397	97,009	46,612	92.49
Cotton	13,439	36,298	22,859	170.09
* Other	1,976	3,490	1,514	76.62
<b>TOTAL</b>	<b>960,533</b>	<b>1,111,161</b>	<b>150,628</b>	<b>15.68</b>

\* Other 1986-87 (Lucerne and other fodder (486), Peanuts (466), Vegetables (34) ; Etc.)

\* Other 1990-91 (Peanuts (1333), Lucerne and other fodder (797), Vegetables (459);Etc.)

# Estimation based on tonnages

Sources : ABS Value of Agricultural Commodities Produced, Qld. Coal Board 40th Annual Review, Qld. Dept. of Mines Annual Reports

**TABLE 2.5: ESTIMATED VALUE OF MACKAY AREA PRIMARY  
COMMODITY PRODUCTION**

	Total 1986-87 (\$,000)	Total 1990-91 (\$,000)	Absolute Change (\$'000)	% Change
Coal - Value at mine #	1,325,000	1,463,000	138,000	10.42
Sugar	187,461	203,683	16,222	8.65
Cattle disposals	94,128	127,257	33,129	35.20
Grains and Seeds	14,526	40,518	25,992	178.93
* Other	7,919	11,490	3,571	45.09
<b>TOTAL</b>	<b>1,629,034</b>	<b>1,845,948</b>	<b>216,914</b>	<b>13.32</b>

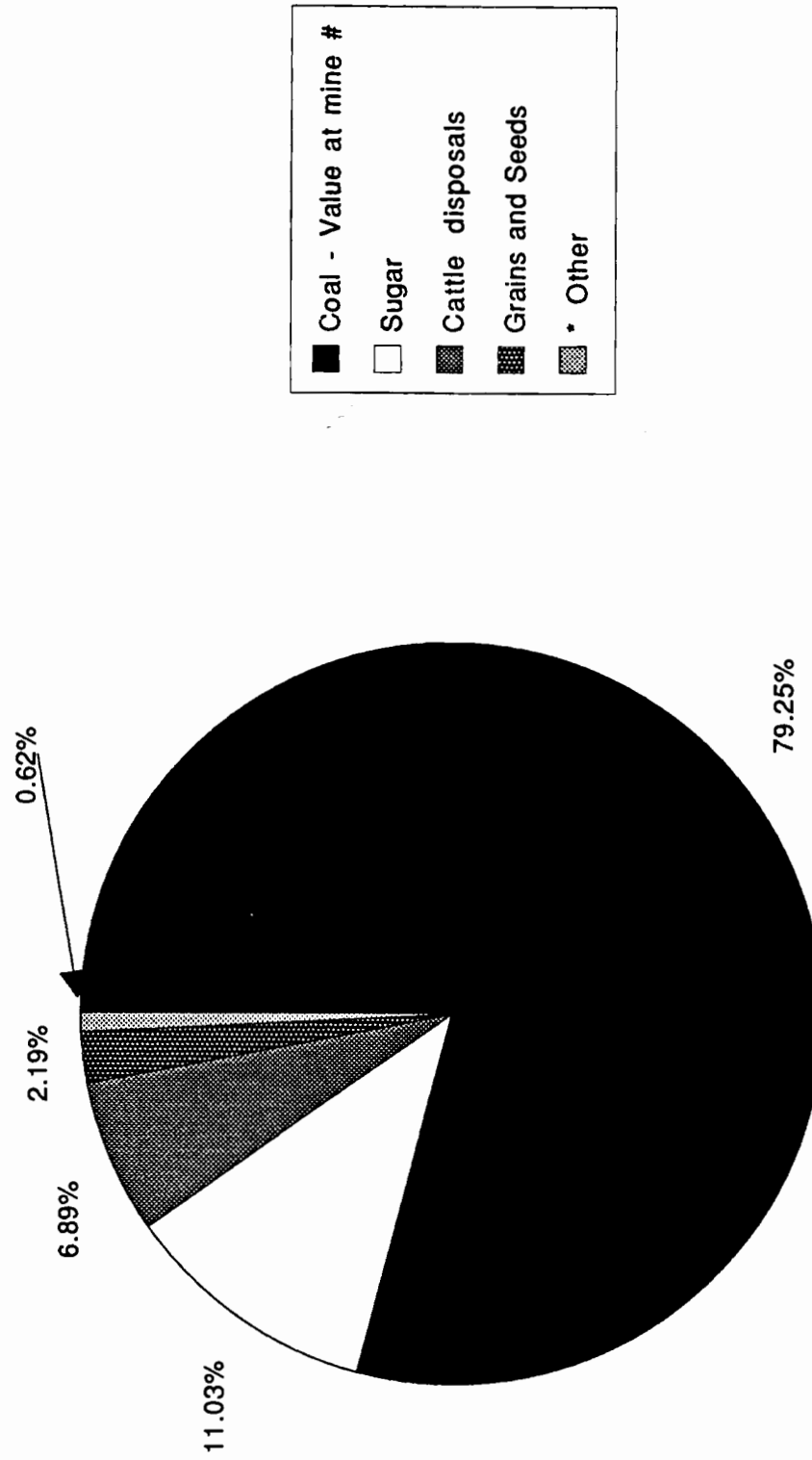
# Estimation based on tonnages

\* Other 1986-87 (Dairying (4981), Pig disposals (740), Egg prod. (602), Lucerne and other fodder crops (291), Vegetables (151) ; Etc.)

\* Other 1990-91 (Dairying (6206), Egg prod. (1384), Pig disposals (693), Vegetables (660), Lucerne and other fodder (466); Etc.)

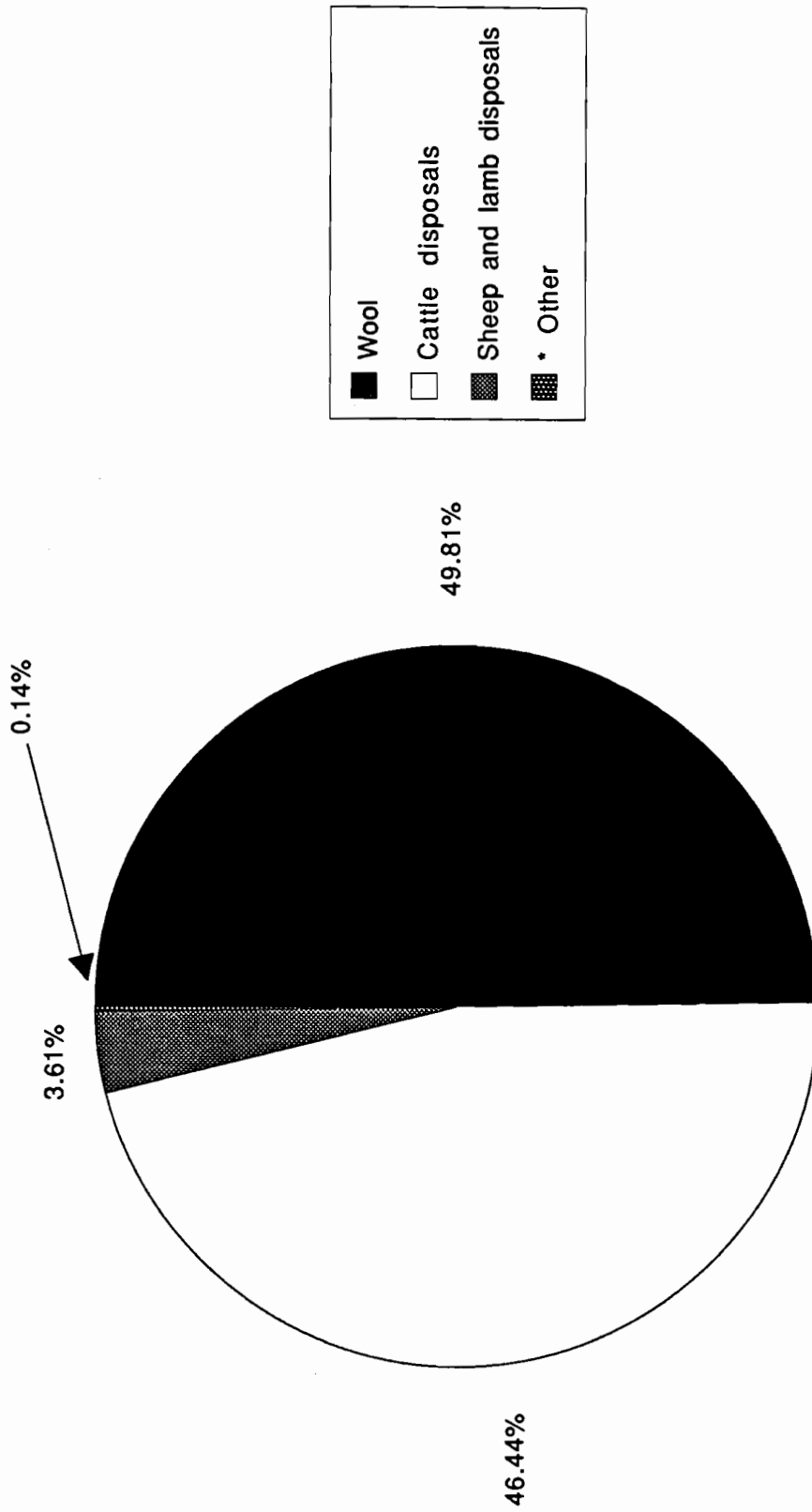
Sources : ABS Value of Agricultural Commodities Produced, Qld. Coal Board 40th Annual Review, Qld. Dept. of Mines Annual Reports

FIGURE 2.5: ESTIMATED VALUE OF MACKAY AREA PRIMARY COMMODITY PRODUCTION  
1990-91



Other : Dairying (0.34%), Egg prod. (0.07%), Pig disposals (0.04%), Vegetables (0.04%), Miscellaneous (0.13%)

FIGURE 2.6: ESTIMATED VALUE OF CENTRAL WEST AREA PRIMARY COMMODITY PRODUCTION  
1990-91



Other : Dairying (0.1%), Lucerne and other fodder crops (0.03%), Miscellaneous (0.01%)

Table 2.6 shows a growth of 20.5% in the value of wool production over the five year period. Beef production grew by 18.2%, but mutton production fell by 8.9%.

### 2.3.7 SUMMARY POINTS

Three of the five sub-regions are heavily dependent on coal production - Mackay (79.3%), Central Highlands (73.6%) and Rockhampton (65.5%). The Gladstone and Central West Sub-Regions have no stake in coal production, but Gladstone has a major role in its handling for export.

To date there has been virtually no value-adding in this, Central Queensland's major industry, but the Yarrabouldy briquette development could change this.

Beef dominates the Gladstone Sub-Region's primary production base, with 63.4% of the total. In the Central West Sub-Region, beef production, with 46.4% of the total, is only 3.4% below the value of wool production. In terms of value of beef production as a percentage of total value of primary commodity production, the Rockhampton Sub-Region has 19.6%, the Central Highlands 14.1% and Mackay 11.0%. So the beef industry is important across the whole Region.

Although considerable meat processing already takes place in the Rockhampton and Mackay Sub-Regions, potential opportunities have been identified for an expansion of this activity through setting up small-scale operations in rural centres in the Central Highlands and the Central West.

Only the Mackay Sub-Region is involved in sugar production, milling and refining. Sugar constitutes 11.3% of the Mackay Sub-Region's value of primary commodity production and 5.2% of that of Central Queensland, giving it third highest ranking.

The potential for additional value-adding within the sugar industry is being actively explored, but the base for value-adding is relatively small.

Grain and seed production, Central Queensland's fourth highest ranked primary commodity group in terms of value of production with 4.1% of the total, is confined to the Central Highlands (8.7%), Rockhampton (4.8%) and Mackay (2.2%) Sub-Regions.

Limited value-adding to wheat takes place in Rockhampton.

And, finally, wool production, with 3.1% of Central Queensland's total in value of commodity production terms, is confined solely to the Central West Sub-Region, where it accounts for nearly 50% of the total.



Potential opportunities for value-adding in the form of small-scale scouring and top making operations have been identified in the Central West and the feasibility of these operations is currently under investigation.

**TABLE 2.6: ESTIMATED VALUE OF CENTRAL WEST AREA  
COMMODITY PRODUCTION**

	Total 1986-87 (\$,000)	Total 1990-91 (\$,000)	Absolute Change (\$'000)	% Change
Wool	99,814	120,253	20,439	20.48
Cattle disposals	53,380	112,115	58,735	110.03
Sheep and lamb disposals	9,574	8,721	-853	-8.91
* Other	35,142	332	-34,810	-99.06
<b>TOTAL</b>	<b>197,910</b>	<b>241,421</b>	<b>43,511</b>	<b>21.99</b>

\* Other 1986-87 (Dairying (264), Lucerne and other fodder crops (20) ; Etc.)

\* Other 1990-91 (Dairying (230), Lucerne and other fodder (77) ; Etc.)

Source : ABS Value of Agricultural Commodities Produced

The five key primary commodity industries, which together comprise 93% of Central Queensland's value of commodity production, are critical to the future economic development of the CQ Region.

Each of these five key industries is evaluated in terms of recent production and market trends and future prospects within a global context, as each has a major export focus.

In terms of the value-adding opportunities identified through Future Search Workshops (Central West and Central Highlands) and the Needs and Opportunities Survey, traditional commodities such as wool and beef, in particular, have been identified as offering scope for establishing value-adding ventures.

To a lesser extent, the sugar and grain industries have been viewed as possible sources of local value-adding opportunities.

It is important, therefore, to examine these five industries in some depth in order to put these perceived value-adding opportunities into context.

## **2.4 THE COAL INDUSTRY**

### **2.4.1 INTRODUCTION**

Black coal, coking and thermal, is the most important commodity in economic terms in the Queensland mining industry and is the State's major export commodity. The bulk of Queensland's coal development is located in Central Queensland's Bowen Basin, where large opencut mines produce 73% of total Queensland production (Figure 2.4.1).

Coal is clearly the most important commodity in the CQ Region. In 1990-91, CQ coal production, with a mine site value of \$2,611 million, accounted for 66.3% of the value of commodities produced in the CQ Region. Central Queensland coal fields produced 80% of Queensland's coal in 1990-91 and accounted for 87% of total Queensland exports (Table 2.4.2).

### **2.4.2 RECENT PRODUCTION TRENDS**

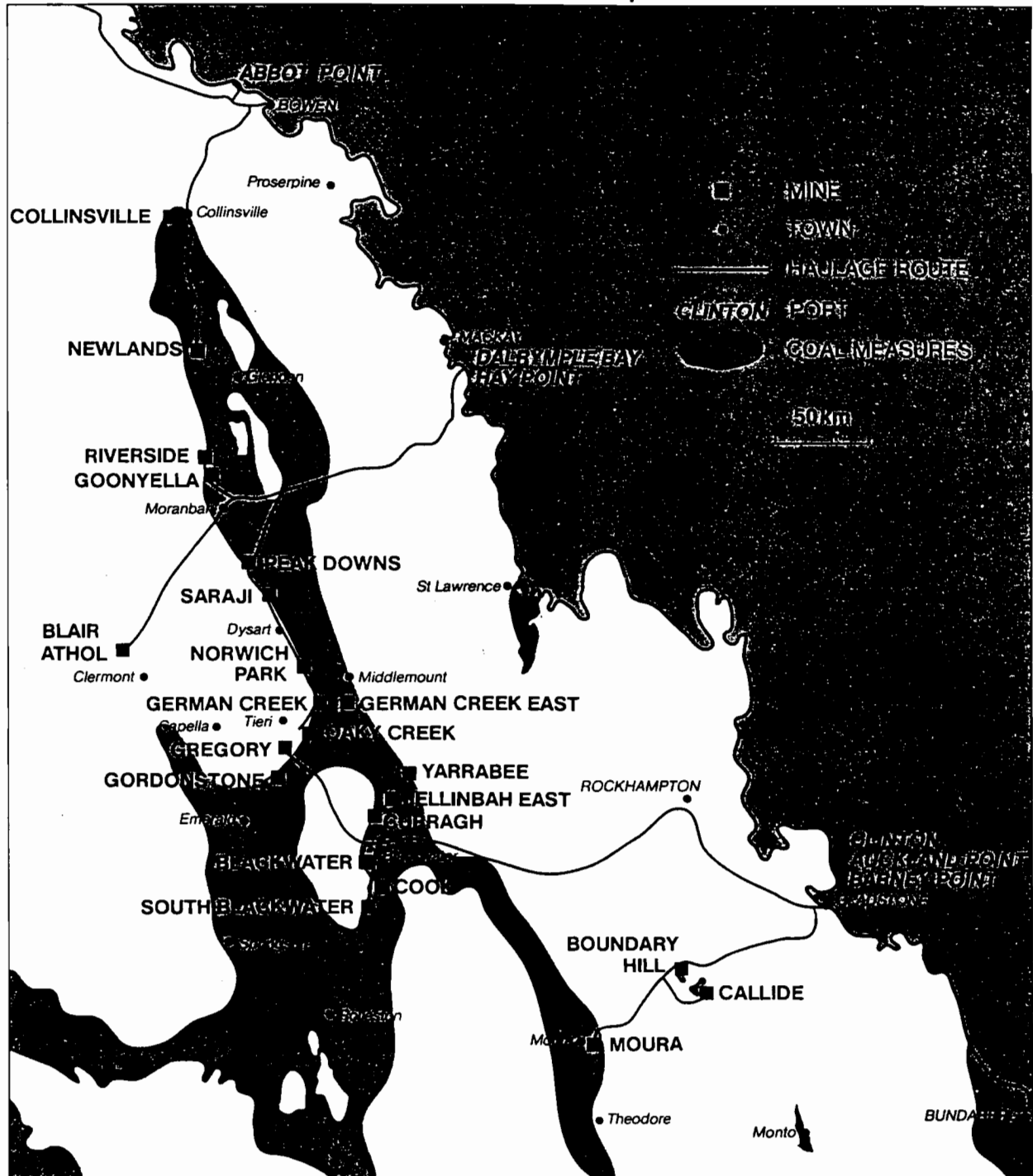
Queensland and CQ coal production have grown significantly over the past six years, with the exception of 1987-88 when depressed price levels and a strengthening Australian dollar caused a drop in output. Growth in production has been particularly strong over the past two years (Tables 2.4.1 & 2.4.2). The value of CQ coal production fell by a massive 20% in 1987-88. Value at mine production recovered in 1988-89, recording a 9% increase in Central Queensland.

Central Queensland value at mine has continued to grow, with a 22.5% increase in 1989-90 and a 2.2% increase in 1990-91. Overall, annual value at mine production has increased by \$699 million since 1987-88 - a 36.5% increase.

Increases in the value of coal production reflect a number of trends in the coal industry:

FIGURE 2.4.1: CQ COAL DEPOSIT DISTRIBUTION AND TRANSPORTATION NETWORKS

## Queensland Coal



Source: 'Queensland Coal', Queensland Coal Board

**TABLE 2.4.1: QUEENSLAND COAL INDUSTRY SUMMARY**

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Mines Operating	41	46	39	38	43	43
No. of Employees	10342	9475	10028	10498	10646	10950
NET PRODUCTION						
'000 tonnes						
Underground	4193	3369	4010	5759	6676	7652
Opencut	64627	62450	70107	69172	71687	76433
State total	68820	65819	74117	74931	78363	84085
\$'000 000						
Value at mine production	2673	2145	2380	2879	2950	-
Ouput per employee shift						
State average	24.98	27.08	29.4	28.32	27.42	28.99
Domestic consumption						
'000 tonnes	11951	12180	13006	13575	13874	14899
Source : Qld. Coal Board 41st Annual Review. Mineral Production Australia. ABS Cat. No. 8405.0						

**TABLE 2.4.2: CQ COAL PRODUCTION AND EXPORTS**

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
NET PRODUCTION						
'000 tonnes						
Underground	2280	2230	2915	4662	5623	6252
Opencut	51936	50236	56623	55804	56846	61254
Total CQ production	54216	52466	59538	60466	62470	67508
% Total Qld. production	78.8	79.7	80.3	80.7	79.7	80.3
\$'000 000						
Value at mine production	2387	1913	2085	2555	2612*	-
% Qld. value at mine prod.	89.3	89.1	87.6	88.8	88.5	-
EXPORTS						
'000 tonnes	44024	49971	51484	53281	53695	60262
* non-continuity of data 1990-91 due to changes in Mining District boundaries						
Sources : Qld Coal Board 41st Annual Review, Qld. Dept. of Mines Annual Report (1986-89), Qld. Mining and Energy Statistics Dept.of Resource Industries (1989). Qld. Govt. Mining Journal, February 1992						



The demand for high quality steaming coal in Europe is also projected to rise as high cost, inefficient coal mines in Germany, Britain and Poland cut back production or are phased out.

In eastern Europe, the demand for imported steaming coals is expected to rise as lignite power stations are converted to burn cleaner black coal from overseas sources. Queensland is well positioned to acquire a sizeable share of this market.

Coking coal exports have risen substantially over the ten year period to 1990-91 when it constituted 65% of Queensland's total coal exports (Table 2.4.3). However, over the next five years, the coking coal market, tied largely to the international steel industry, will ease as a consequence of rapid advancements in steel manufacturing technologies. Nevertheless, demand for Queensland's high quality coking coals is expected to remain fairly steady.

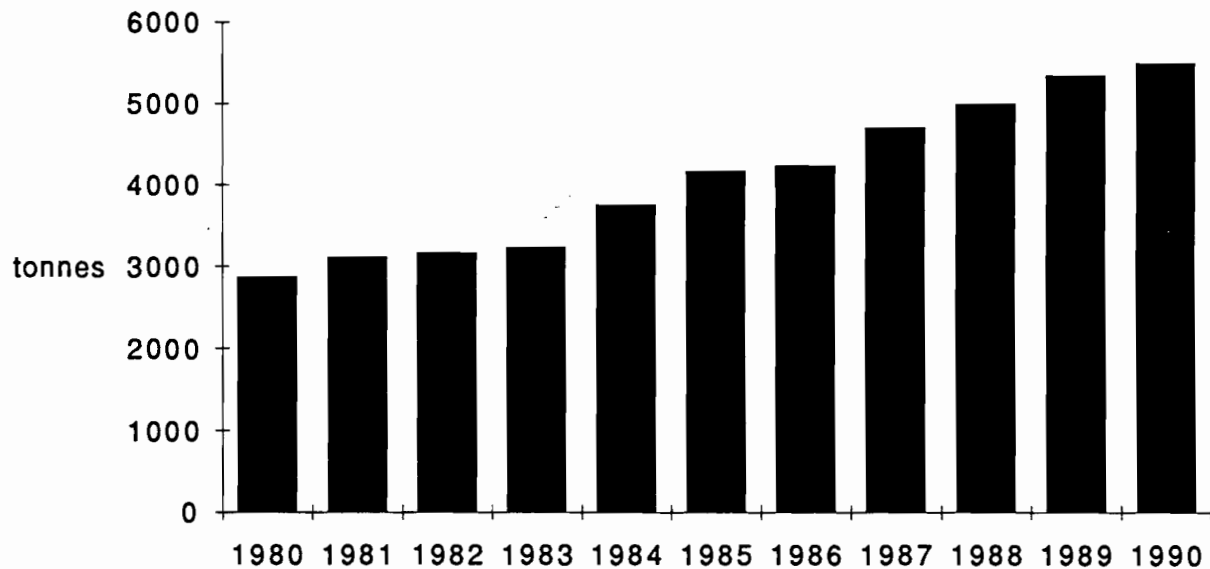
**(ii) Increases in productivity**

To counter the low coal prices and domestic cost pressures experienced in 1987-88, the coal mining industry sought to maximise production and sales tonnages in order to minimise unit costs. Dramatic increases in productivity have been achieved through capital expenditure on more productive equipment. Since late 1988, radical changes to coal mining work practices have gradually been implemented. Queensland Coal Board statistics on output per man-shift worked show an 8.7% increase to 29.4 tonnes in 1988-89 compared with 27.05 tonnes in 1987-88 (Table 2.4.1). The marginal fall in productivity since 1988-89 can be attributed to site specific factors such as a severe wet season in 1991-92 and a move to labour intensive underground mining. Figure 2.4.2 indicates the overall gains in productivity in the Australian coal industry over the past ten years.

**(iii) Domestic consumption increase**

Domestic consumption of coal continues to rise with a 7.4% increase over the previous year being recorded in 1991-92 (Table 2.4.1). Within Queensland, the electricity industry remained the major consumer of coal (Table 2.4.5). Increased coal consumption by power stations, meat processors and paper and board mills has caused domestic consumption to rise by 85% over the past ten years.

**FIGURE 2.4.2: PRODUCTIVITY IN THE AUSTRALIAN COAL INDUSTRY**  
Output per man year



	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Output per man year	2880	3110	3170	3240	3760	4170	4240	4710	5000	5350	5500

Source : ABARE Outlook '92

**TABLE 2.4.5: QUEENSLAND COAL CONSUMPTION BY CONSUMER GROUPS**

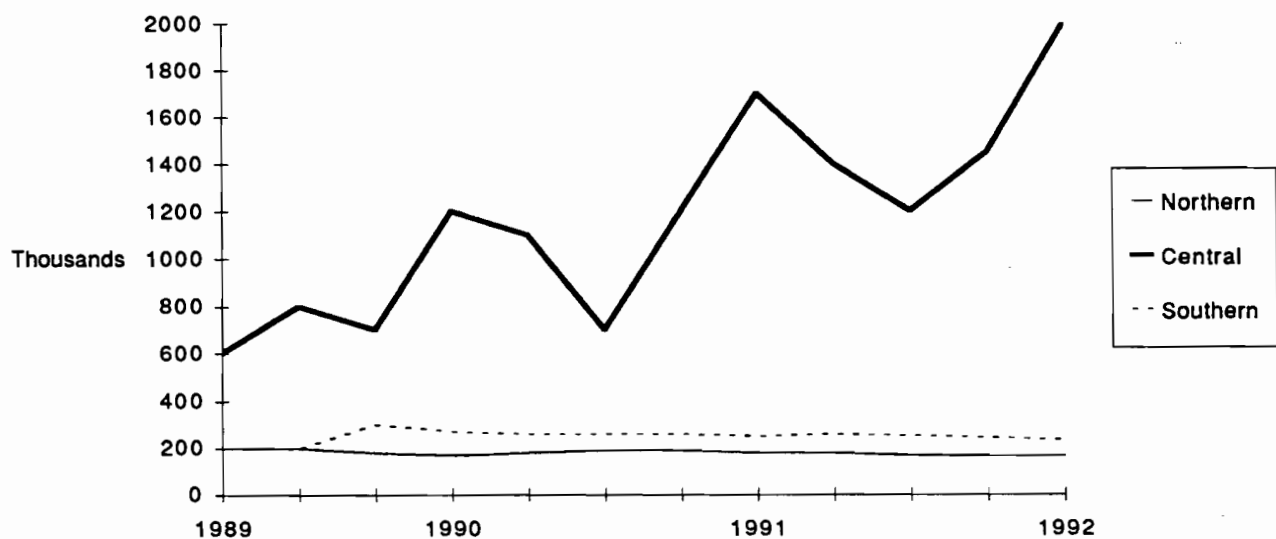
	1988-89	1989-90	1990-91
CONSUMER GROUP			
Electricity	10491	11192	11517
Basic Non-Ferrous Metals	1658	1587	1574
Cement and Concrete Products	290	264	224
Water Transport	189	168	180
Paper, Paper Products,	71	79	75
Printing and Publishing			
Source : Qld. Coal Board 40th Annual Review			

(iv) **Underground and Opencut**

The Queensland coal industry is dominated by large opencut mines which presently contribute more than 90% of total coal production. However, as existing large opencuts go deeper, mining costs are rising and the industry is gradually making the transition to underground production, providing reserves and ground conditions are favourable.

Underground operations presently contribute 9.1% of total Queensland coal production. However, the importance of underground mining is increasing rapidly with the establishment of a new generation of longwall mines. The success of longwall systems, in terms of output, is particularly notable in the CQ Region (Figure 2.4.3).

**FIGURE 2.4.3: UNDERGROUND PRODUCTION BY AREAS, QUEENSLAND**  
Tonnes per quarter



	1989			1990			1991			1992	
Northern	200	200	180	170	180	190	190	180	180	170	165
Central	600	800	700	1200	1100	700	1200	1700	1400	1200	1450
Southern	200	200	300	270	260	260	260	250	260	255	245

SOURCE : Qld. Coal Report, Qld. Coal Board



In addition to output, the expansion of underground operations has been reflected in a rise in staffing levels. Employment in the Queensland coal industry rose from 10,498 persons in 1989-90 to 10,950 in 1991-92 (Table 2.4.1).

### 2.4.3 **EXPECTED FUTURE TRENDS IN THE INTERNATIONAL COAL INDUSTRY**

#### (i) **Prices**

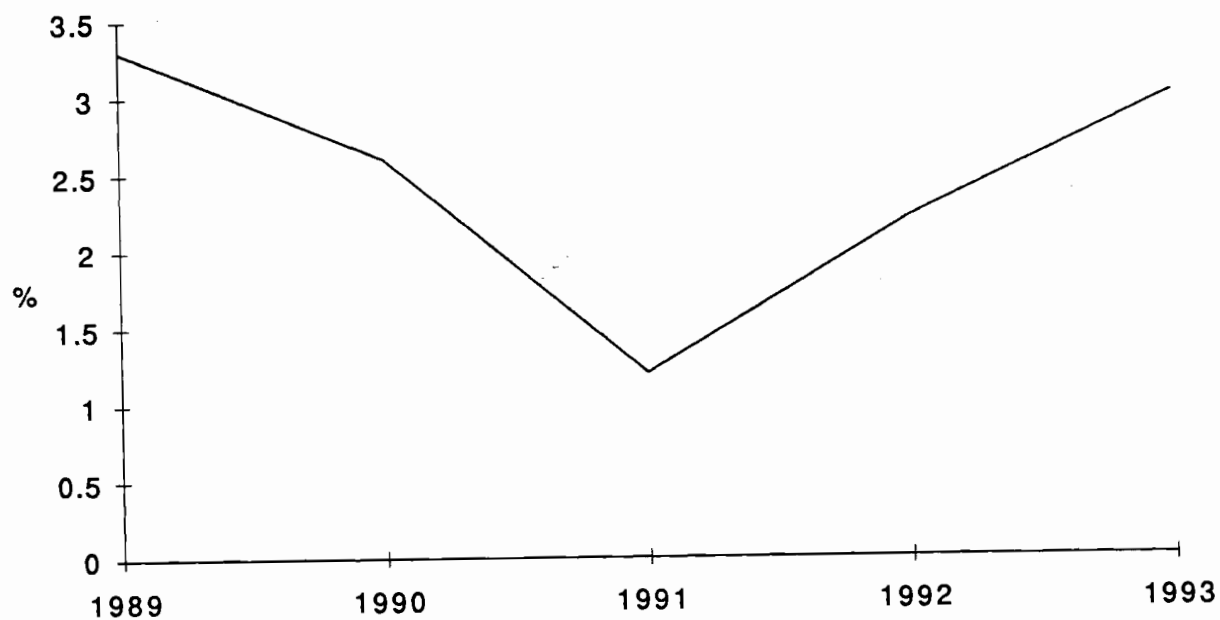
The world has started the decade of the '90s with a much slower than average economic growth rate (Figure 2.4.4). The general downturn experienced by a number of major economies has placed intense pressure on raw materials costs, and there have been reductions in the prices of some coals. However, ABARE forecasts that the Australian steaming coal base price will rise slightly in real terms from around US\$40/t in 1991-92 to US\$41/t in 1996-97. ABARE forecasts there will not be sufficient supply to meet demand growth. Australian coking coal base prices are projected to rise in 1991-92 US dollar terms from a weighted base price of US\$49.50 in 1991-92 to US\$50.50 in 1996-97. ABARE submits that price projections will be sensitive to assumptions about economic growth and other factors such as the impact of environmental constraints (Figure 2.4.5).

Recent price negotiations (January 1993) in Japan have resulted in export price cuts by Australia's biggest coal customers, the Japanese steel mills. A major CQ coking coal producer/exporter has agreed to price cuts averaging about 4%. Price reductions have resulted from an oversupply in both hard coking and weak coking coal markets. Increasing competition and the quicker than expected resolution of strikes at two big Canadian mines have strengthened the Japanese bargaining position. In addition the sluggish Japanese economy has resulted in lower steel production - a reduction from 111.7m tonnes in 1990 to 98m tonnes in 1992.

#### (ii) **Coking and steaming coal exports**

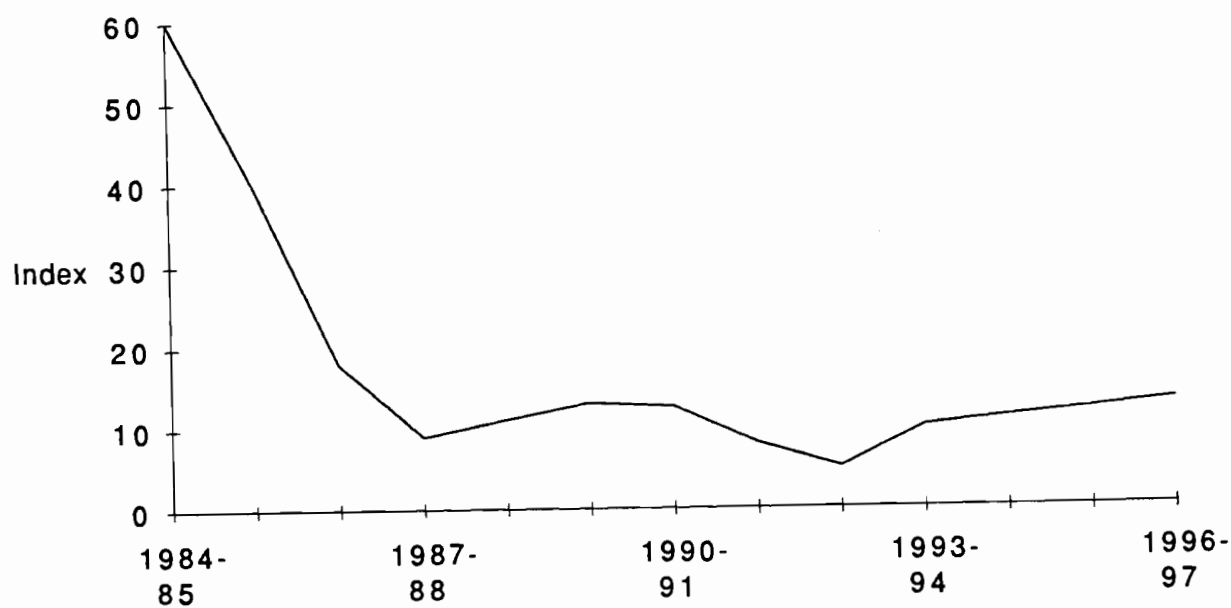
As has been discussed, steaming coal exports are projected to rise while the coking coal market is expected to ease. According to ABARE forecasts, steaming coal trade is projected to increase by 4.5% per annum, while coking coal trade is projected to rise by only 0.2% a year (Table 2.4.4). An indication of planned CQ coal exports is provided by the Port of Gladstone forecasts shown in Table 2.4.6.

**FIGURE 2.4.4: ANNUAL RATE OF ECONOMIC GROWTH (%) OECD COUNTRIES**



Source : ABARE Outlook '92

**FIGURE 2.4.5: WORLD ENERGY PRICES (IN 1991-92 SDR TERMS)**



Source : ABARE Outlook '92

**TABLE 2.4.6: PORT OF GLADSTONE ESTIMATED CARGO THROUGHPUT  
1992-2012**

	1992	1997	2002	2007	2012
'000 tonnes of coal	18195	30000	37000	41500	45000
% annual increase		62	12.3	12.2	8.4
Source : Strategic Plan, Gladstone Port Authority					

(iii) **Competition**

Increased demand for steaming coal has lead to an increase in Queensland production for export. However, the rise in demand has also been reflected in improved sales performances from other producers. Growth in the international coal trade is likely to be accompanied by increasing competition. This competition will, in the main, come from Indonesia, South Africa, Colombia and the US. Excess supply will tend to place downward pressure on prices.

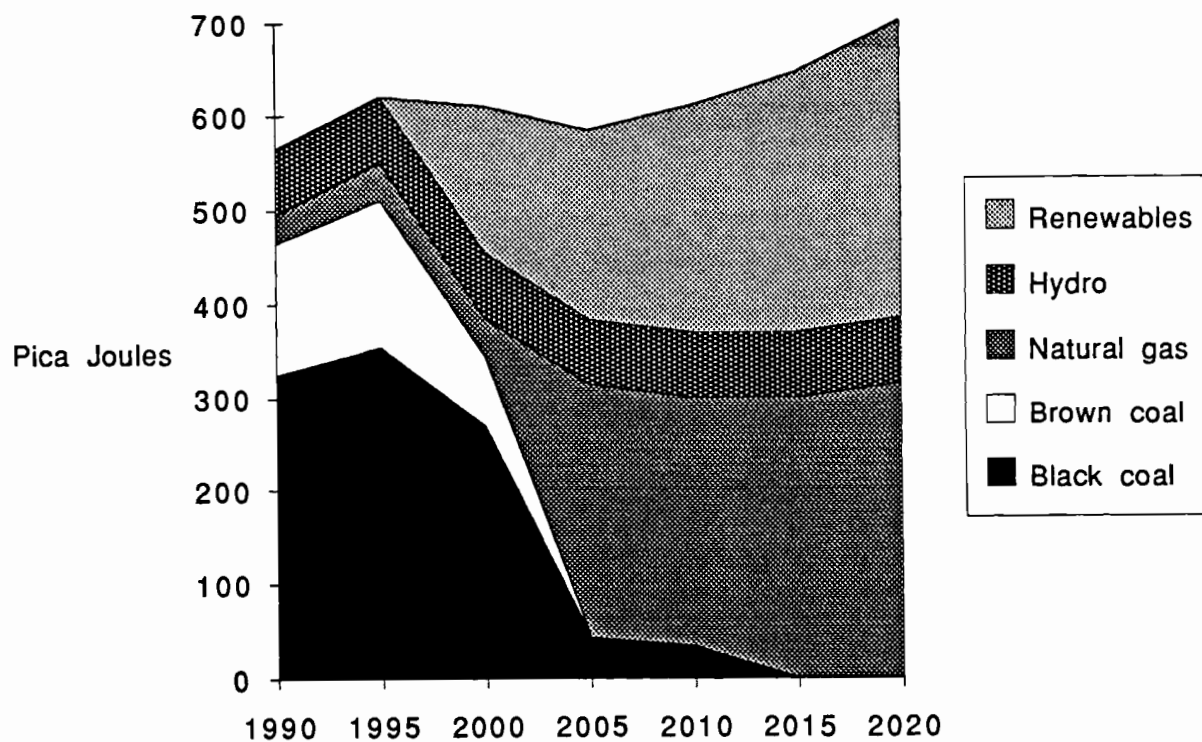
(iv) **Environment**

Uncertainty surrounds projections of the possible impact of environmental concerns on the coal industry. The impact of moves to reduce carbon dioxide emissions and the use of coal as a source of energy will ultimately depend on the level of international cooperation that can be achieved to address this issue. It does, however, place a question mark over the long term prospects of the industry.

The Australian Government has already adopted an interim planning target of a 20% reduction, based on 1988 levels, of Greenhouse emissions by the year 2005. Meeting the government's target would mean substantial changes to the structure of the Australian energy sector. In particular, a large reduction in the use of coal (which has the highest level of carbon dioxide emissions of any source of energy), particularly for electricity generation, may be necessary (Figure 2.4.6).

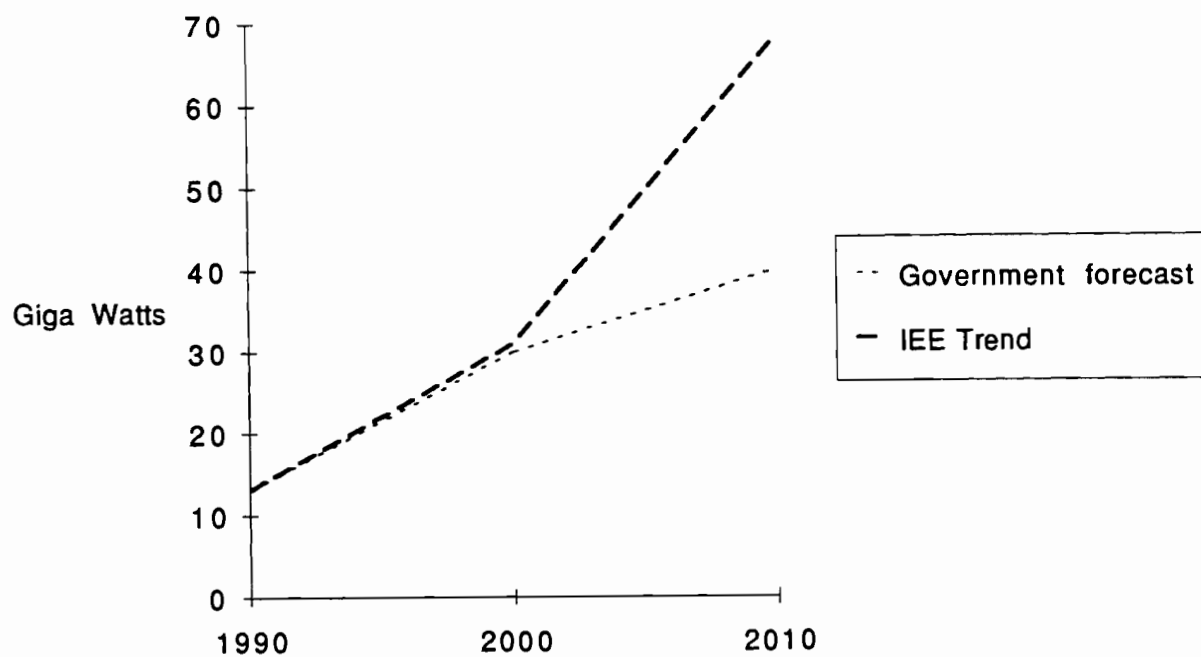
However, if environmental restrictions (carbon tax) are not implemented to this extent, coal demand for electricity generation may well increase. Figure 2.4.7 shows that both the Institute of Energy Economics and government projections forecast an increase in Japanese coal demand for electricity.

**FIGURE 2.4.6: ELECTRICITY OUTPUT BY FUEL, UNDER GREENHOUSE CONSTRAINT**



Source : ABARE Outlook '92

**FIGURE 2.4.7: FORECASTS ON POWER CAPACITY OF COAL - JAPAN**



	1990	2000	2010
Govt. forecast	13	30	40
IEE Trend	13	31	68

Source : ABARE Outlook '92

From an industry point of view, Queensland's cleaner coals are well suited to changing public expectations of industry. Additionally, the impact of environmental concerns does not look like effecting the industry in the short term. It appears market prices for coal will remain competitive and CQ production is set to increase significantly over the next five years to meet the projected increase in demand with a resumption of strong global economic growth (Figure 2.4.5).

#### 2.4.4 **RECENT AND PLANNED CQ COAL MINE DEVELOPMENTS AND INITIATIVES**

##### (i) **Projects completed during 1991-92**

The Jellinbah East Coal Mine near Blackwater was developed at a cost of about \$30 million, and has been exporting trial shipments to Japan and is seeking to establish long term associations with customers with the view to investing further capital.

The Gordonstone Coal Mine, 43 km northeast of Emerald, was developed at a cost of \$500 million, and commenced mining in December 1992. The Gordonstone Joint Venture continues to move towards the development of the largest underground coking and thermal coal mine in Australia and should be at full capacity by 1994.

The Blair Athol expansion project has been completed and the mine now produces 8 million tonnes of steaming coal per annum and is Australia's largest exporting coal mine.

The 1991-92 coal production data were not available when the foregoing analysis in this Section was carried out. However, the impact of the new developments would have increased the commodity value of coal from 66% of the CQ total value of commodity production to close to 70%. This is evidenced by the following:

In mid-August 1992, Resource Industries Minister the Hon. Tony McGrady MLA, announced that for the year up to 30 June 1992, coal exports had increased by 12.5%, reaching a record total of 69,655,810 tonnes for the year.

Hay Point, south of Mackay, handled 22.3 million tonnes, Gladstone a record 19.6 million tonnes and Dalrymple Bay near Mackay 18.3 million tonnes. Collectively, this tonnage was worth \$4,000 million - an increase of \$400 million, or 10%, in dollar value terms over the previous year.

In mid-December 1992, BHP Australia Coal announced its commitment to proceed with the development of the Crinum Underground Coal Deposit (near the existing Gregory Mine) at an estimated development cost of \$200 million. When in full production, the mine is expected to produce in the region of 2.5 million tonnes per year.

Following on BHP's Crinum announcement, the State Government announced the removal of restrictions to developing 300,000 sq km of coal-rich terrain in Central Queensland for exploration and evaluation. This was supportive of the private sector expansionary thrust, which was clearly manifest.

This, coupled with the Federal Government's 'One Nation' 10% Development Allowance Initiative, has led to a quickening of the tempo on the CQ coal industry development scene.

In early February 1993, coal industry spokespersons were predicting that CQ coal exports could well increase by 70% over the next decade. This is consistent with planned expansion of coal handling facilities at Gladstone which, by the end of 1994, will have a 30 million tonne per year capacity.

(ii) **Projects recently committed**

A commitment to proceed with the Ensham Coal Mine, 30 km northeast of Emerald, with a development cost of \$400 million, has been announced. Production could commence by mid-1993.

In December 1992, commitment was made to proceed with the \$200 million Crinum Underground Coal Mine near the existing Gregory Mine south of Tieri.

(iii) **Projects under study**

DBIRD's publication, *Major Development Projects and Proposals in Queensland* (Issue no. 12, 1992), provides a good indication of the sheer magnitude of CQ coal mine development projects that are planned to come on-line.

- Development work on the Clermont Coal Deposit, at an estimated cost of \$500-\$600 million, scheduled to commence in the mid-1990s.

In mid-December 1992, BHP Australia Coal announced its commitment to proceed with the development of the Crinum Underground Coal Deposit (near the existing Gregory Mine) at an estimated development cost of \$200 million. When in full production, the mine is expected to produce in the region of 2.5 million tonnes per year.

Following on BHP's Crinum announcement, the State Government announced the removal of restrictions to developing 300,000 sq km of coal-rich terrain in Central Queensland for exploration and evaluation. This was supportive of the private sector expansionary thrust, which was clearly manifest.

This, coupled with the Federal Government's 'One Nation' 10% Development Allowance Initiative, has led to a quickening of the tempo on the CQ coal industry development scene.

In early February 1993, coal industry spokespersons were predicting that CQ coal exports could well increase by 70% over the next decade. This is consistent with planned expansion of coal handling facilities at Gladstone which, by the end of 1994, will have a 30 million tonne per year capacity.

(ii) **Projects recently committed**

A commitment to proceed with the Ensham Coal Mine, 30 km northeast of Emerald, with a development cost of \$400 million, has been announced. Production could commence by mid-1993.

In December 1992, commitment was made to proceed with the \$200 million Crinum Underground Coal Mine near the existing Gregory Mine south of Tieri.

(iii) **Projects under study**

DBIRD's publication, *Major Development Projects and Proposals in Queensland* (Issue no. 12, 1992), provides a good indication of the sheer magnitude of CQ coal mine development projects that are planned to come on-line.

- Development work on the Clermont Coal Deposit, at an estimated cost of \$500-\$600 million, scheduled to commence in the mid-1990s.

- . An exploration and feasibility study, at a cost of \$4 million, is in progress at the Moranbah North Coal Deposit. Mine development cost is estimated at \$300 million. Commencement of the project is expected in 1994.
- . Exploratory mining at the North Goonyella Coal Deposit near Moranbah is underway. This project has an estimated development cost of \$370 million. Reserves are estimated at 500 million tonnes of coking coal.
- . Feasibility studies are underway at the Suttor Creek Coal Deposit, 200 km west of Mackay. It is estimated that 2 million tonnes per annum of export-bound, high quality steaming coal will be produced using the opencut method.

(iv)

#### **Initiatives**

The Federal Government 'One Nation' Development Allowance Initiative is expected to provide a boost to coal mine developments in Central Queensland, and will probably result in the commencement dates for some of these projects being brought forward. The development allowance takes the form of a 10% tax deduction open only to projects involving gross capital expenditure of \$50 million or more over a maximum period of ten years (Ensham, Crinum, Gordonstone, Clermont North, Moranbah North, North Goonyella and Suttor Creek mines would all qualify).

Barring no further significant price reductions or strong appreciation of the A\$, initiatives of this nature will provide a boost to CQ coal development and exploration ventures which will have a major impact in the short term and carry over to the middle term.

Quite apart from mine development expenditure, the CQ economy has gained considerably in terms of new infrastructure necessary to support this massive development thrust. For example, the following projects have provided or will provide a range of income and employment generating benefits.

- . Gladstone Port Authority. Clinton Coal Facility Expansion - Additional Stockpile Capacity. 10th Stockpile completed August 1991 at a cost of \$8.5 million.
- . Gladstone Port Authority. Clinton Coal Facility Expansion - Additional Train Unloading Facility.



Queensland Railways. Stanwell Power Station Coal Transport. Spur line completed December 1991 at a cost of \$17 million.

Gladstone Port Authority. Clinton Coal Facility - Additional Stockpile Capacity. Stockpiles 11 and 12. Estimated cost \$30 million. Stockpile 11 completed December 1992; Stockpile 12 scheduled for completion by July 1993.

Gladstone Port Authority. Clinton Coal Wharf Expansion. No. 2 Shiploader and Duplication of Shiploader Conveyor Belt. Estimated cost \$29 million. Expected completion by December 1993.

Queensland Railways. Ensham Rail Project. Spur line to mine. Estimated cost \$80 million.

Gladstone Port Authority. Gladstone Harbour Dredging Program. Estimated cost \$50 million. Stage 2 yet to be completed at an estimated cost of \$15 million.

Queensland Electricity Commission. Gladstone Power Station Upgrade. Estimated cost \$42 million. Currently in progress. Completion expected in 1996.

Queensland Railways. Gordonstone Coal Mine Rail Project. Spur line to mine. Estimated cost \$147 million. (Spur line \$15 million; Rail upgrading works \$72 million; Rolling Stock \$60 million.) Expected completion early 1993.

Queensland Electricity Commission. Stanwell Power Station. Estimated cost \$1,650 million. Scheduled completion by mid 1996.

The Harbours Corporation of Queensland. Dalrymple Bay Coal Export Terminal - Stage 2 expansion. Estimated cost \$100 million. Would require construction period of 2-3 years. (DBIRD, *Major Development Projects and Proposals in Queensland*, Issue No. 12, 1992)

This is an impressive list of currently active heavy infrastructural development projects by any standard.

The overall coal industry development program in Central Queensland provides a good example of government agencies (Queensland Railways, Queensland Electricity Commission, The Harbours Corporation of Queensland) and a private sector operator,

the Gladstone Harbour Authority, working in close harmony with the private sector (mainly joint ventures) mining companies to ensure that the necessary infrastructure capacity is in place to support the expansion of this vital export industry.

#### 2.4.5 VALUE-ADDING PROSPECTS

The development of the Yarrabouldy smokeless briquette, with the assistance of UCQ researchers, is a very exciting initiative. It represents the start of high value-adding to coal in Central Queensland, has strong export potential and satisfies the most stringent environmental tests.

DBIRD funding has assisted the company in developing production and marketing strategies.

This is an excellent example of the formation of fruitful strategic alliances involving the private sector, the University, the government sector and the local media.

#### 2.4.6 SOME POLICY POINTERS

- . The coal industry dominates the CQ economy in terms of value of commodity production and export earnings. It has been the lead industry since 1974-75 and has progressively consolidated this lead position and is set to establish new production and export performance records.
- . This industry has to be the spearhead of Central Queensland's regional economic development strategy, as well as those of the Mackay, Central Highlands and Rockhampton Sub-Regions, where its dominance in terms of value of commodity production is clear-cut.
- . Although not a coal producer, the Gladstone Sub-Region, by virtue of the fact that it contains a world class deep water port, has a major stake in the further development of the coal industry, with the Gladstone Harbour Authority geared up to handle projected increased bulk throughput.
- . Ventures like the Yarrabouldy coal briquette initiative need the full support of the CQ community, as this provides the opportunity of high value-adding to an abundant resource and could become a significant employer and export income earner. Value-adding to produce exportable coal products, particularly environmentally acceptable ones, is indeed a fortuitous opportunity at this juncture.

To gain maximum advantage from the coal industry expansion, a concerted attempt should be made to:

- (i) increase the CQ share in supplying goods and services to the mining industry;
- (ii) cooperate with the mining industry in researching better techniques for mine site rehabilitation; and
- (iii) encourage research into and the dissemination of new technologies for grappling with the Greenhouse gas threat.

## 2.5 THE BEEF CATTLE INDUSTRY

### 2.5.1 INTRODUCTION

Since the turn of the century, Queensland has been Australia's premier beef cattle state, carrying more cattle and producing and exporting more beef than any other state, with Central Queensland featuring as one of the largest beef cattle producing regions.

The total number of meat cattle in Queensland during 1991 was 9,575,169, of which Fitzroy Statistical Division accounted for 1,781,212 (18.60%), followed by the North West 1,303,059 (13.61%), Darling Downs 1,236,975 (12.92%), South West 986,026 (10.30%), Mackay 897,568 (9.37%), Northern 874,287 (9.13%) and Moreton and Brisbane 330,336 (3.45%). (QDPI, *Rural Exports Facts Sheet*, December 1991)

In dollar value terms, Australia earned \$1,770 million from beef and veal exports over the period June 1988 to June 1989. Of this figure, Queensland's share amounted to \$949 million (53.6% of total Australian exports). From June 1989 to June 1990, Australian exports increased to \$2,352 million, of which Queensland accounted for 52.8% (\$1,242 million). (QDPI, 1991)

The domestic market provides a solid base for the CQ beef industry. The Australian domestic market accounts for approximately 40% of production. A survey conducted by BIS Shrapnel in 1991 reveals the importance of beef and veal in the food service industry in Australia, with total expenditure on beef and veal accounting for 34%. (ABARE, *Beef Trade Outlook*, 1992, p. 2)

The consumption of beef since 1990 has fallen below 40 kilograms (kg) per person in Australia, mainly because of the recession. Consumers have turned towards lower priced meat. The AMLC has expressed confidence that beef consumption will return to the 40 kg per person level once the recession is over.

### 2.5.2 WORLD BEEF PRODUCTION

World beef production in 1991 was approximately 48 million tonnes. In 1992, world beef production rose to almost 49 million tonnes, representing a 1.6% increase over 1991. The outlook for world beef production for the period 1992 to 1995 indicates that there will be a continued steady increase. Although world cattle numbers are stable, increases are taking place in those countries supplying Pacific Rim markets (however, actual figures are unavailable). Forecasts indicate that competition from poultry and pork will increase sharply, limiting price gains for beef suppliers. Income growth in newly industrialised countries could result in increased import demand for beef and veal which are regarded as somewhat of a luxury. Any prospect for a stronger world economy would add to the demand for beef. However, rising income and availability of alternative meats will also allow consumers to exercise their options regarding choice of meat consumption based on environmental and health concerns. (ABARE, 1992, *Beef Trade Outlook*, 1991, p.1)

The growth in beef and veal consumption is relatively slow compared with the growth in poultry and pig meat consumption. The beef industry of Australia is moving towards automated boning and packaging technology, in anticipation of reduced costs flowing from using more efficient boning technology. This would render meat processing less labour intensive and less prone to wage cost pressures and industrial stoppages. (Meat Research Corporation, 1991, Research and Development Plan, p. 14)

### 2.5.3 DOMESTIC MARKET

#### (i) Domestic Share of Beef

The domestic market provides a solid basis for the Australian beef industry, accounting for approximately 40% of total production.

#### (ii) Present Position - 1992

In the last twelve months, retail beef sales have suffered from the impact of the worst domestic economic recession since the Great Depression of 1929-34. Beef consumption per capita has fallen below 40 kg per head (Table 2.5.1). Note that per capita consumption of beef was above 40 kg in 1989-90, but declined rapidly during the 1990-91 period to less than 39 kg per capita.

**TABLE 2.5.1:  
AUSTRALIAN PROJECTED CONSUMPTION PER PERSON (BEEF AND VEAL)  
1991-92 TO 1996-97**

TABLE 2.5.1 : AUSTRALIAN PROJECTED CONSUMPTION PER PERSON (BEEF AND VEAL) 1991-92 TO 1996-97

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
		s	f	z	z	z	z	z
UNIT								
kg	40.9	38.8	39.6	37.7	37.8	38.6	39	39.2

s As at 31 March. f ABARE Forecast. z ABARE projection

Source : "Beef Trade Outlook", ABARE National Agricultural And Resources Outlook Conference 1992

(iii) **Expected Future Trends**

Lower relative prices of other meats and a lower rate of income growth in 1990-91 are expected to contribute to falling beef and veal consumption over the next three years (Table 2.5.1). On the domestic market, retail prices have not shown any significant improvement in recent months.

(iv) **Market Share**

Beef is the most popular single food item used in the Australian food service industry. According to the BIS Shrapnel survey, expenditure on meat, poultry and seafood by the food service industry during 1991 totalled \$1,575 million. This category of foods represented the largest outlay, accounting for 41% of the industry's total food and beverage bill of \$3,738 million. Beef and veal represented the major purchase, accounting for 34% of the total spending on meat, poultry and seafood. (QDPI, *The Queensland Economy*, circa June 1992, p. 2.)

#### 2.5.4 RECENT PRODUCTION TRENDS IN QUEENSLAND

Reflecting worsening seasonal conditions, producers aimed to sell off cattle for cash flow purposes, with cattle slaughtering increasing by 12.5% in March 1992 over the previous year. The Australian slaughter level of 652,279 head in March 1992 was the highest since May 1991. Slaughterings increased in Queensland by 28% and New South Wales by 12%, while numbers actually fell in South Australia and Western Australia. (*Meat and Livestock Review*, April 1992, p. 12)

Table 2.5.2 depicts Queensland beef and veal production trends over the seven year period from 1985 to 1992. Apart from a lapse in 1989, a steady increase is evident. Queensland's share of Australian production did not exceed the 1985 level of 40% until 1992.

**TABLE 2.5.2:  
BEEF PRODUCTION TRENDS: QUEENSLAND AND AUSTRALIA: 1985-1992  
(YEAR END PRODUCTION)**

YEAR	QUEENSLAND BEEF PRODUCTION	QUEENSLAND VEAL PRODUCTION	QUEENSLAND BEEF & VEAL PRODUCTION	AUSTRALIAN BEEF & VEAL PRODUCTION	QLD. AS PERCENTAGE OF AUST.
1992	715803	6733	722536	1757382	41.11%
1991	680999	6538	687537	1750061	39.20%
1990	621160	6647	627807	1677137	37.43%
1989	559223	7414	566637	1491480	38.00%
1988	599571	9385	608896	1587717	38.35%
1987	582479	9712	592190	1520365	38.95%
1986	432722	10809	543531	138516	39.14%
1985	513539	10370	523909	1311438	39.95%

Source : Australian Meat and Live-stock Corporation

### 2.5.5 BEEF PRODUCTION IN THE CQ REGION

The CQ Region is recognised as a distinct cattle producing area, turning off 37% of Queensland's fat cattle and slaughtering 21.6%. There is a movement of cattle south from the Region at two different points in the production schedule. The first occurs when stock are moved south as stores for further fattening (often in feedlots). The second occurs when fat cattle are shipped to the southern abattoirs for slaughter. About 40% of the fat cattle produced in Central Queensland move south to be slaughtered.

Over 90% of the beef produced in Central Queensland is exported, principally to Japan, the US and Korea. The Region is a major supplier to the high value Japanese market of grass-fed and grain-fed Jap Ox. This market normally demands certain cuts of meat from a carcass, allowing the rest to be sold in other markets. The Korean market normally takes only whole carcasses, while the American market takes a large volume of manufacturing meat. Overall, the Japanese market is the highest *value* market, while the American market is the highest *volume* market. (Rolfe, J., *Central Queensland Journal of Regional Development*, Vol. 1, No. 2, p. 11)

Table 2.5.3 provides a summary of Australian beef production trends by State over the 22 year period from 1971 to 1992. Notice that whilst Victorian production was slightly ahead of that of Queensland in 1971, Queensland took a clear lead in 1975 and, by 1992, had more than double Victoria's production, which had reverted to the 1971 level.

**TABLE 2.5.3: BEEF PRODUCTION BY STATE - 1971-1992**

Beef Production (tonnes c.w)

Yr	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
71	269627	294234	291833	41787	63903	29479	14301	3144	1008308
72	292829	321227	334415	48632	76940	34422	15443	3277	1127187
73	403629	408092	367207	62219	88899	46946	15116	3910	1396018
74	349239	376886	336385	60583	93460	45669	12695	4195	1279112
75	429672	395623	416408	79896	105252	47592	13112	5224	1492779
76	518018	458797	471645	87803	144689	57923	12426	5279	1756580
77	577099	467192	504996	106874	156270	55790	16573	5004	1889801
78	629458	530199	566036	119983	144413	59779	23908	5937	2079713
79	574979	404207	644160	112264	133846	46269	26024	5812	1947561
80	430175	298436	500299	87854	114624	36561	36471	6005	1510425
81	358414	342147	422388	90851	125155	36814	35195	6666	1417630
82	325372	348181	557490	97644	121677	40560	27489	7830	1526243
83	352557	344017	487260	102058	118292	43516	30684	3251	1481635
84	280616	245797	532509	80272	96464	31376	29357	5991	1302382
85	262483	257827	513539	79111	100396	30821	23094	4698	1271969
86	306302	282509	532722	77697	89851	31019	22115	5461	1347676
87	350396	297930	582478	90282	94522	37780	21761	5584	1480733
88	391834	294709	599511	91700	100670	39479	25120	6158	1549183
89	362097	290214	559223	87159	93557	36180	24683	6260	1459373
90	428873	308279	621160	99698	105750	45515	25940	6701	1641916
91	449179	327782	680999	87037	94578	42281	25314	6252	1713422
92	451514	302384	715803	88302	90892	45228	22581	6067	1722773

Source: AMLC Corporation.

### 2.5.6 CQ INDUSTRY OUTLOOK

The outlook for the CQ beef industry is for subdued growth over the medium term. Dry seasonal conditions are expected to continue to depress saleyard prices, as slaughterings increase and the quality of cattle entering the market declines. Beef and veal exports are expected to decline slightly in 1991-92. Exports to the US have been disrupted by the introduction of voluntary export restraints in the last quarter of 1991. Japanese demand for Australian beef has been slow compared to expectations. United States' meat import controls continue to disrupt Australia's export trade. (QDPI, 1992, p. 3)

The rise of beef stocks in the EC continues to pose a very significant threat to Australia's beef trade. The import demand in coming years is still uncertain since Australia's markets in Asia could be significantly undermined and thus jeopardise the long term prospects for Australian beef and veal exports. A lot of attention needs to be directed towards this increasingly discriminating Asian market.

The medium term outlook for the CQ beef industry into the 1990s is generally favourable, despite recent difficulties. This is despite a decline in production of beef and veal and lower saleyard prices in 1991-92 because of lower slaughter weight associated with dry conditions in some key producing areas and lower export demand. Cattle prices have declined steadily since late February/early March 1992. This has occurred as a result of weakening prices in the domestic and key export markets.

Australian exports of beef to Japan are projected to increase over the medium term. Australia's response to increased competition from the US, in terms of the implementation of appropriate production, distribution and marketing practices, will largely determine Australia's performance in this market in coming years.

The likely nature and composition of Japanese beef import demand in coming years is still uncertain. Import arrangements in both Japan and Korea beyond the next one to two years are still to be determined. (QDPI, 1992, p. 3)

This uncertainty does little to engender confidence in growers and may suggest that the marketing arm of the industry is not feeding back the necessary planning information to growers.

### 2.5.7 FUTURE PROSPECTS FOR AUSTRALIAN BEEF

#### (i) Yard Prices

The saleyard price for beef is forecasted to increase by almost 10% as production falls. The prospects of favourable returns is encouraging.



Driven by strong export demand over the medium term, saleyard prices for cattle are projected to increase significantly and then begin to stabilise. Cattle numbers are projected to increase, although at a slightly lower rate than is currently being experienced, such that by 1995 there will be 28.5 million head in Australia. Slaughtering is expected to increase steadily throughout the projection period. (US Department of Agriculture, 1992)

(ii) **Consumption Trends**

The consumption of beef worldwide is decreasing, with the exception of strong demand for beef in the fast growing North Asian nations. Note that 60% of Australian beef and veal production is exported primarily to the US, Japan and Korea. (Meat Research Corporation, 1991, p. 14) The falling number of sheep associated with less favourable prospects for wool underlie the outlook for the Australian meat industries in the medium term. The likely further liberalisation of the North Asian beef market would boost returns to Australian cattle producers.

The per capita beef consumption in the US is expected to remain unchanged in the medium term, with the general tendency for beef prices to decline continuing. (US Department of Agriculture, 1992)

(iii) **Competitive Environment**

The National Cattlemen's Association in the US released a report in 1989 suggesting that the beef cattle industry needs to lower costs to remain competitive with alternative meat products. The beef slaughter sector is achieving most economies of plant and firm size and the cattle feedlot industry has been moving towards larger, more efficient lot production units. The beef cattle industry has become concerned about its competitive position based on the changing per capital consumption and retail prices of competitive meats. (US Department of Agriculture, 1992)

The domestic consumption of beef is forecast to decline in response to higher prices as products are increasingly directed towards the export market. This export focus is in response to higher returns.

The emerging patterns for Central Queensland's beef trade is for exports to be increasingly directed towards the lucrative North Asian markets. Beef shipments to the US are forecast to fall in the medium term. However, prices for Australian beef landed in the US are expected to be substantially higher. Limited herd

rebuilding is under way in the US and the processing of beef supplies is expected to increase only marginally. When combined with reduced shipments from Australia, due to stronger Japanese demand, the US supply situation will be tight. The prospects for increased Australian beef trade with South Korea are promising. (US Department of Agriculture, 1992)

## 2.5.8 BEEF VALUE-ADDING IN CENTRAL QUEENSLAND

### (i) Abattoirs

Rockhampton City has been involved in beef processing for export markets since 1868, when Berkleman's Laurel Bank Meatworks dispatched its first commercial shipment of canned beef. The present status and organisation of the meat processing industry is succinctly described as follows:

'Four export licensed abattoirs (two at Rockhampton, one each at Mackay and Biloela), and two domestic license abattoirs (one each at Rockhampton and Bundaberg) operate in the CQ Region. They face strong competition from 22 abattoirs in Southern Queensland and very limited competition from seven abattoirs in Northern Queensland. Most abattoirs are situated on the coast, in order to secure adequate supplies of cattle, labour and infrastructure, particularly transport. Although it is cheaper to transport meat than livestock, the importance of continuous throughput means that abattoirs must be able to source their cattle from large areas of the State. Abattoirs that are situated closer to the point of consumption or shipment of exports have a much greater flexibility in sourcing their livestock than works situated close to herds.

Meat processing in Queensland, although undertaken at a number of abattoirs, is dominated by a few meat processing firms. Thus Australia Meat Holdings (AMH) with four abattoirs, and Borthwicks, the Vesty group and Teys Bros with two abattoirs each, can account for over half the cattle killed in Queensland. These four firms dominate the CQ market, holding one export licensed abattoir each in the Region.' (Rolfe, J., *Central Queensland Journal of Regional Development*, Vol. 1, No. 2, p. 12)

In November 1992, the all Australian-owned company, Smorgans, took over the Angliss Meat Processing Division, including the Rockhampton Lakes Creek Meatworks, previously a Vesty family operation.

(ii) **New Abattoir Proposals**

Arising out of the Future Search Workshops in the Central West and Central Highlands, DBIRD has been involved in commissioning a feasibility study to assess the viability of establishing an integrated mutton processing plant in the Central West using the latest meat processing techniques, and a pre-feasibility study to ascertain the viability of a beef abattoir and associated feedlot (Belyando Beef Pty Ltd) at Clermont in the Central Highlands.

(iii) **Further Diversification and Value-Adding Initiatives/ Opportunities**

The Australian beef industry has traditionally been conservative in its approach to the development of new and alternative products. However, industry and government, at regional, State and national levels, now recognise the importance of maximising value-adding prior to export. Traditional meat production is progressively being complemented by market and processing research into the development of a wide range of new and exciting products which utilise traditional cuts of meat. There is also extensive research being undertaken into co-product development, which seeks to add value to those parts of the carcass which were once considered to be by-products of negligible economic value.

Presently, according to one industry source, some 65,000 tonnes of dried beef products such as beef jerky, granules and powders are being exported to Asia, Europe and the US annually. The opportunities to expand exports of such products appear promising. Research is presently being undertaken by the Meat Research Corporation (MRC) into identifying niche markets overseas and into new processing methods such as drying technology and product specifications such as flavour and protein profiles.

It would also appear that there is scope to combine dried meat with grain and other agricultural commodities to produce a nutritionally balanced meal. As well as being suitable as a general food source, the production of mixed dried food products could possibly be used as a form of foreign aid as well as for military purposes.

Despite having an abundance of cattle of suitable quality and the necessary technical and marketing expertise, Central Queensland does not have a dried beef processing plant. However, there are a number of CQ players in the industry who have developed dried beef products, but are manufacturing and exporting from outside the Region. This is primarily due to the specialised nature of processing

and the large capital establishment costs of a drying and processing facility. However, there would appear to be potential for the development of a dried beef processing plant in Central Queensland to target specialist market niches overseas.

Co-product development falls into the following broad categories: hides, meat meal, tallow, pet foods and edible offals.

### **Hides**

Traditionally, Australia has exported hides in their green state with the bulk of value-adding occurring overseas. This has been primarily because of the high costs and effluent problems associated with tanneries. However, in recent years there has been a significant increase in the number of 'wet-blue' tanneries to such an extent that from 1989 to the end of 1992, the number of hides processed to 'wet-blue' stage increased from 15% to 50-60% of total hides exported. Processing to this stage adds approximately \$20 to the value of each hide; that is, about 40% of the finished product price.

There have been a number of studies into the establishment of 'wet-blue' tanneries in Central Queensland. However, none have come to fruition primarily due to perceived difficulties in satisfying environmental constraints and dealing with effluent disposal. More recently, a tannery has been established at Murgon as part of a study to identify the benefits to the Australian industry of processing hides to a finished product stage.

Indications are that international demand for finished or partially finished hides exceeds current supply, and there is a potential window of opportunity for the Australian industry to increase and actively target the processed hide market. Central Queensland, with its abundance of supply of cattle and abattoirs and access to port facilities, is well positioned to develop its processed hide industry. However, the quality of hides is a major problem which will need to be addressed if Central Queensland is to maximise the opportunities from cattle hide processing.

### **Pharmaceutical Products and Fertilisers**

Blood and bone and inedible offals have traditionally been rendered for the production of fertilisers.

Blood and other materials such as bile have also been used to produce pharmaceutical diagnostic materials. This is a high value, low volume market. Research is presently being undertaken to identify opportunities for alternative uses for blood and bile such as

in pet food production. Whilst this is a comparatively low value product, the volume and extent of pet food production could offer a viable alternative use of blood and other materials which may offer greater returns to the industry.

Meat and bone meal is a high-value stock feed additive. Blood and bone fertiliser products could also be produced in Central Queensland.

### **Pet Food**

Traditionally, inedible offals which are used in pet food manufacturing have been viewed by meat processors as a by-product of negligible economic value. However, pet food production and the value-adding opportunities that it offers suggests that a different philosophy is required in relation to the treatment of offals. The pet food industry is a major downstream processor of inedible offals. About 120,000 tonnes of beef and sheep offal are utilised annually in the production of pet food which returns to the meat and livestock industry some \$30 million per annum. There are also opportunities emerging to increase pet food exports.

The Australian pet food market is dominated by a small number of large companies, making entry by potential new producers extremely difficult. A recent study into the feasibility of establishing a mutton processing plant in Central Queensland concluded that, due to market dominance by a few producers, the establishment of a canned pet food facility would not be viable.

Whilst it is never easy to enter, let alone carve out and maintain a viable market share in an oligopolistic industry, as Powers and Compass Mark I and Mark II have recently learnt, the fact that there is heavy concentration within the pet food industry should not be interpreted as an absolute bar against a new start up CQ owned pet food manufacturing operation, particularly when an abundance of the necessary inputs exist in this Region.

A CQ pet food producer could target the Queensland market initially, labelling the product as a CQ product and using local pedigree dog breeders to promote the product. A new type of container, plastic perhaps, with a screw-off or prise-off lid may give the product a unique appeal. There may be scope for exporting low cholesterol health food for pets. This potential opportunity needs to be investigated further.

### Edible Offals

Edible offals include tails, skirt meat, kidneys, livers and lungs. The market is export-dominated. The extent to which abattoirs utilise edible offals depends on, amongst other factors, whether they are an EC export registered plant. This is because the EC is the major market for edible offals.

The majority of Central Queensland export abattoirs are EC registered and supply the EC market. There would appear to be scope for further value-adding of edible offals in terms of product development, packaging and brand name market penetration.

### 2.5.9 NEW HORIZONS

A lot has been written on the dependency of the Australian beef industry on the vicissitudes of economic and political events that are beyond our control, the concentration on scientific and technical research and the comparative neglect of economic and market research and fragmentation due to the emergence of several strong special interest groups within the industry.

The recent release of the *New Horizons* series of papers by the National Farmers Federation (NFF) addresses the strategic question: What must agriculture do to capitalise on its strengths and opportunities through change outside and within the sector?

The aim of the *New Horizons* initiative is to develop a strategy for Australia's Agri-food industries on the understanding that it is vital for agriculture to remain in control of its future and the belief that there is strength in unity. It therefore advocates 'a combined Agri-food industry' strategic planning approach with a view to addressing the following tasks:

- ‘. examine the future prospects and opportunities for agriculture;
- . identify the policy decisions to grasp these opportunities; and
- . publish this work in book form for wide distribution.’ (*New Horizons: A Strategy for Australia's Agri-Food Industries*, p. 1)

This initiative is highly relevant to Central Queensland, and the future strategic directions it provides should be adopted and vigorously pursued. It is of a sufficient scale to catch the imagination and assist producers and processors in escaping from debilitating mindsets and prematurely imposed constraints. It is based on a realistic assessment of the position of Australia's Agri-food industries from an international perspective.

#### 2.5.10 SOME POLICY POINTERS

- . DBIRD has already taken action on the clear signal from the Future Search Workshop program to investigate the viability of a beef processing plant located in the Central Highlands Area.
- . The potential for exporting a range of products like beef jerky, including a variety of dried meat products that can be used in final food preparation, should be thoroughly explored.
- . There is a need to plan now and for the Agri-food sector to pool the resources of the separate industries (beef, veal, grain, mutton, lamb, seafood, vegetables, fruit, dairy products) if the big push to capture the fast growing Asian markets and to popularise the 'Clean and Green' CQ label is to succeed. To this end, CQ Agri-food producers/processors should embrace the NFF Agri-food Industries Strategy.

### 2.6 THE SUGAR INDUSTRY

#### 2.6.1 INTRODUCTION

Raw sugar is the second most valuable crop after wheat in Australia and is the second largest rural food commodity in Queensland. (Canegrowers, 1992, *Sugar Structured to Win*, p. 6) Sugar has contributed greatly in building Queensland's economy. Directly and indirectly, sugar adds about \$3.3 billion to the Queensland economy every year. This favourably affects Australia's balance of payments since more than three-quarters of Australia's raw sugar is exported. (Queensland Sugar Corporation, 1991, *Sugar Notes*, p. 4)

Australia is presently the third largest sugar exporter in the world, with total exports in 1990 equalling around \$1 billion. Raw sugar contributed about 1.7% of the total value of all Australian exports during 1990-91. (Canegrowers, 1992, p. 6; and Queensland Sugar Corporation, 1991, p. 1)

Briefly, there are 28 raw sugar mills in Australia, 25 of which are located along the coastal regions of Queensland. In Queensland, the total area under cultivation is more than 310,000 hectares, with the industry employing some 20,000 people engaged in the growing, milling, storage and marketing of sugar and its associated products. (Queensland Sugar Corporation, 1991, p. 1)

The domestic sales of Queensland raw sugar totalled approximately 690,000 tonnes during the 1990 season. (Queensland Sugar Corporation, 1991) The Corporation is one of the major exporters of raw sugar to the international market and particularly to the Asia Pacific Region. The highly competitive environment within

the industry has forced Queensland producers to keep their production and marketing costs to a minimum. (Queensland Sugar Corporation, 1991)

### 2.6.2 CQ SUGAR INDUSTRY

Sugar is Central Queensland's third largest primary commodity item in terms of value of production, with 5.2% of the Region's total and, next to cattle, the second most important food production industry. The Mackay Sub-Region accounts for all of Central Queensland's sugar production. Next to coal, with 79.3%, sugar is the Mackay Sub-Region's second ranked commodity in value of production terms, with 11% of the total.

The Mackay District of Central Queensland contains six raw sugar mills. The total area under cultivation in 1990-91 was 98,103 hectares, accounting for 32% of Queensland's total. Central Queensland production in the same year was 6.5 million tonnes, or 24% of total Queensland production. (ABS Cat. No. 7120.3)

Of the last ten years in the Mackay District, nine have witnessed below average seasonal rainfall. With limited access to water storage, cane growers rely on limited reserves from streams and underground sources to irrigate on a supplementary basis. The effect of the water shortage problem is reflected in the Queensland raw sugar production figures shown in Table 2.6.1.

### 2.6.3 GLOBAL PRODUCTION PATTERNS

In 1989-90, the world production of raw sugar increased by 4% and by a further 5% in 1990-91. It has been forecast that world production would reach 113.6 million tonnes for the year ending 31 August 1992. What has been predicted is a gradual increase in world production in the medium term, but at a slower rate than the growth in world consumption. (ABARE, 1992, *Sugar Outlook*, p. 2)

### 2.6.4 PRODUCTION TRENDS: QUEENSLAND AND AUSTRALIA

Table 2.6.1 shows a steady increase in Queensland sugar production from 1986 to 1989 and thereafter a fairly rapid decline, with the result that 1991 production is 9.1% below that of 1986.

As Queensland accounts for 92% of Australian production, the same trend is reflected in the production figures for the nation.

Central Queensland production has followed the same downward trend to a greater extent, with 1991 production 36.4% below that of 1986. Drought conditions have been the main factor in this decline.



**TABLE 2.6.1: RAW SUGAR PRODUCTION TRENDS:  
CQ, QUEENSLAND AND AUSTRALIA 1986-1991**

Year	Central Queensland (Mackay District)	Queensland	Australia	CQ as % of Queensland	Qld as % of Australia
1986	1,112,481	3,132,953	3,371,904	35.5	92.9
1987	86,343	3,167,889	3,440,342	27.3	92.1
1988	1,004,762	3,404,702	3,678,810	29.5	92.5
1989	1,099,189	3,522,786	3,798,428	31.2	92.7
1990	919,635	3,262,170	3,514,519	28.2	92.8
1991	707,825	2,843,458	3,110,831	24.9	91.4
<b>% change</b>					
1986 to 1991	-36.40%	-9.40%	-7.70%		

Source: Queensland Sugar Corporation and Mackay Executive Canegrowers

Table 2.6.2 provides a ten year time series on sugar production and dollar values for Australia as a whole. It has been previously noted that Queensland accounts for 92% of total Australian production on average. The last column on the right, 'Gross Value of Qld Cane Production', has been calculated on this basis.

Overall cane production in 1990-91 was only marginally above that for 1981-82, but gross value over the period increased by 27.6%. Central Queensland production value has also increased over the past five years, from \$187 million in 1986-87 to \$203 million in 1990-91 - an increase of 8.7%. After allowing for inflation, the real revenue yield to growers in 1990-91 would be well down on that for 1981-82.

Cane yields show up as being quite erratic, as does area harvested. The Mackay Statistical Division in particular is typified by a significant increase in production value over the past four years, from \$187,461,000 in 1986-87 to \$203,683,000 in 1990-91, an increase of 8.7%. (ABS, Regional Value of Agricultural Commodities Produced, 1986/87, 1990/91)

**TABLE 2.6.2: AUSTRALIAN SUGAR CANE PRODUCTION AND VALUE  
1981-82 TO 1990-91**

	Area Harvested '000ha	Cane Production kt	Cane Yield t/ha	Unit Gross Value of Cane Production \$/t	Gross Value of Cane Production \$m	Gross Value of Qld Cane Production \$m
1981-82	316.0	25,094	79.4	23.5	590	542.8
1982-83	318.0	24,817	78.0	20.5	509	468.3
1983-84	306.8	24,191	78.8	21.4	517	475.6
1984-85	312.1	25,450	81.5	20.1	512	471.0
1985-86	304.0	24,402	80.3	20.2	494	454.5
1986-87	309.7	25,413	82.1	23.1	586	539.0
1987-88	316.4	25,669	81.1	24.1	618	568.6
1988-89	316.6	28,071	88.7	26.4	740	680.8
1989-90	331.8	27,622	83.3	31.4	868	798.6
1990-91	338.3	25,200	74.5	29.9	753	692.8

Source: ABARE, 1991, The Australian Sugar Industry in the 1990's, p.7.

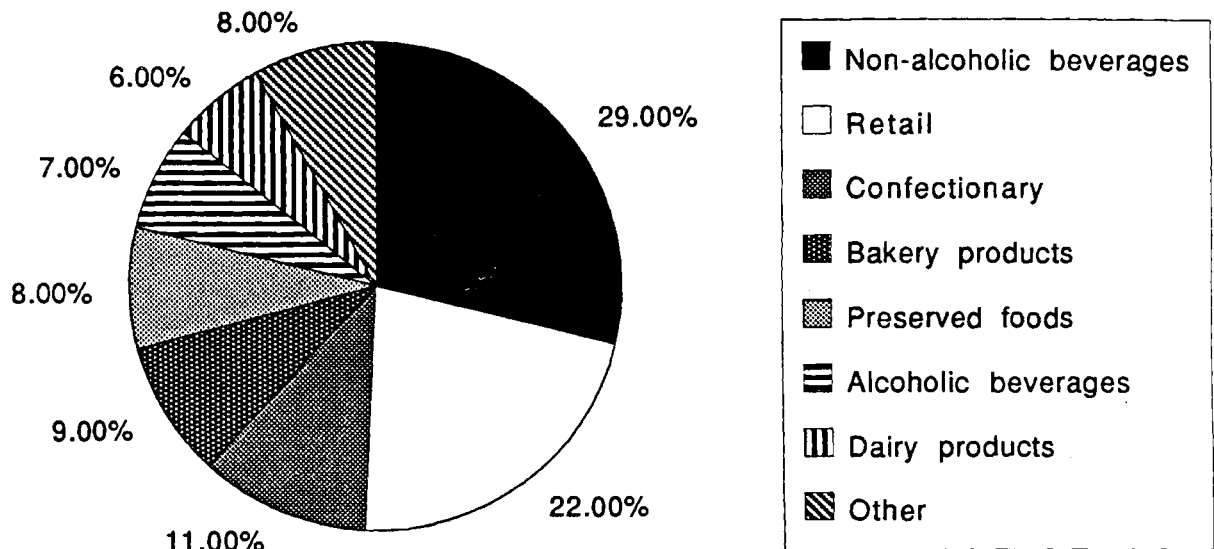
## 2.6.5 SUGAR CONSUMPTION PATTERNS

### (i) Domestic

Approximately 25% of the total Australian raw sugar production was sold to refiners for domestic consumption during 1990-91. The principal consumers of raw sugar are the confectionary industry, the non-alcoholic beverages industry, the retail industry and various food processing industries using sugar additives. The total consumption of refined sugar in Australia during 1987-88 is shown in Figure 2.6.1.

The domestic market has been de-regulated since 1 July 1989. This was followed by a major change in policy for importing sugar into Australia as the embargo on importing raw or refined sugar was removed. These events affected the price and consumption patterns to such a degree that Australian sugar prices now vary with movements in the world market price.

**FIGURE 2.6.1:  
AUSTRALIAN CONSUMPTION OF REFINED SUGAR 1987-88**



Source : Processed Food Industry Council, July 1990, p.34

(ii) **Overseas**

The global consumption of sugar grew only moderately during 1988-89 and 1989-90, principally because of higher world prices and unfavourable economic conditions. Presently, the consumption growth is centred in developing countries where increases in population, income and living standards are being experienced.

The global production of sugar during 1992-93 is projected to be 116.2 million tonnes, whilst consumption is estimated to be 113.8 million tonnes. (Queensland Sugar Corporation, 1992, *Sugar Notes*)

A continuing decline in world prices for sugar is being experienced; this is the result of world production levels exceeding consumption demand.

The major factors in the growth of world sugar consumption is seen to be a change in retail prices of sugar, an increase in world population growth, increases in income, and a change in consumer attitudes/perception towards sugar.

## 2.6.6 COMPARISON OF PRODUCTION COSTS - SELECTED COUNTRIES

Table 2.6.3 provides a production cost comparison for nine sugar cane producing countries over an eight year period from 1979-80 to 1986-87.

In terms of rank (field plus factory cost), South Africa and Brazil (CS) show up as more efficient producers than Australia. These cost advantages are mainly attributable to cheaper labour.

## 2.6.7 SUGAR EXPORT PATTERNS

The Queensland sugar industry is a major exporter of raw sugar. Sugar is the fourth major export earning agricultural product in Australia. Total exports of raw sugar from Australia during 1989-90 was 2.7 million tonnes, valued at approximately A\$1 billion. Although Australia produces only 3-3.5% of the world sugar output, it is positioned as the third major exporter of sugar behind Cuba and the EC.

Almost all raw sugar exported from Australia is produced in Queensland. In 1990-91, Queensland exported 80% of its raw sugar (2.6 million tonnes). (See Table 2.6.4 for details of export markets.)

Table 2.6.4 shows Australian raw sugar export tonnage by importing country. The preliminary 1990 figures show total exports are marginally below the 1988 level.

Japan clearly shows up as Australia's dominant buyer, with Canada, Malaysia, Korea and China next in significance in that order.

Table 2.6.5 indicates that the world export/import pattern for raw sugar is fairly stable. This is shown graphically in Figure 2.6.2.

Over the last fifteen years, the world trade in raw sugar has declined in comparison to white (refined) sugar. However, almost the entire trade of Australian sugar is in raw sugar only. In the absence of an export based white sugar industry segment, Australia cannot take full advantage of the opportunities available in the world market, although it may gain indirectly from increased sales to toll refineries established in Malaysia, China and South Korea. It is expected that the Australian share in the world market will decline if it remains solely a raw sugar exporter.

Table 2.6.6 shows Queensland's raw sugar exports by country of destination from June 1991 to June 1992. Whereas the big five are still Japan, Canada, Malaysia, Korea and China (PRC), the rankings have changed with Canada now the major importer, followed by Japan, Malaysia, Korea and China (PRC) in that order.

**TABLE 2.6.3: CANE SUGAR PRODUCTION COSTS, SELECTED COUNTRIES  
1979-80 TO 1986-87  
(\$US PER TONNES OF SUGAR, RAW VALUE, EX MILL)**

		1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Australia	field cost	126	145	163	160	172	139	140	144
	factory cost	66	57	59	63	81	67	75	73
	rank*	9	9	9	7	17	6	7	8
Brazil (CS)	field cost	116	122	152	160	135	112	113	121
	factory cost	69	65	73	88	79	85	89	91
	rank*	7	4	11	18	5	5	6	7
Brazil (NE)	field cost	160	172	202	205	172	142	151	150
	factory cost	109	105	116	122	114	102	105	99
	rank*	32	21	31	33	25	12	14	13
China	field cost	176	192	192	199	216	238	270	227
	factory cost	177	189	190	224	242	214	196	162
	rank*	44	39	41	45	48	49	48	42
India	field cost	143	197	177	159	164	141	148	152
	factory cost	113	189	110	76	83	169	158	132
	rank*	25	40	24	13	12	31	27	24
Japan	field cost	461	469	599	502	493	478	522	561
	factory cost	196	182	262	247	215	207	213	246
	rank*	52	52	54	57	57	59	59	60
Mexico	field cost	156	188	202	162	151	172	166	175
	factory cost	96	113	108	112	103	99	97	81
	rank*	24	27	29	23	16	20	16	15
South Africa	field cost	112	127	136	148	181	146	117	142
	factory cost	36	46	50	59	99	65	57	56
	rank*	1	3	2	4	22	7	3	5
Thailand	field cost	148	201	171	206	204	125	136	116
	factory cost	81	219	93	59	67	89	100	85
	rank*	21	45	20	20	19	9	8	6
USA (mainland)	field cost	214	234	263	236	269	257	254	235
	factory cost	53	60	87	97	105	93	93	84
	rank*	29	25	39	34	39	36	36	29
USA (Hawaii)	field cost	242	273	291	293	294	262	246	249
	factory cost	66	89	92	106	105	115	106	95
	rank*	37	37	42	43	44	40	38	35

\* Rank relative to total cost (field plus factory) out of all countries surveyed (61 in 1986-87).

Source: Landell Mills (1989).

**TABLE 2.6.4: AUSTRALIAN RAW SUGAR EXPORTS BY COUNTRY OF DESTINATION**

Year ended 30 June (tonnes raw value)

Country of Destination	1988	1989	1990*	Total over 3 Year Period
Japan	675,125	723,688	555,128	1953941
Malaysia	490,917	476,697	477,874	1445488
Canada	506,824	503,865	440,743	1451432
Korea	371,714	414,889	343,056	1129659
China	498,163	210,687	188,135	896985
USSR	-	197,928	318,978	516906
Singapore	109,378	141,451	173,335	424164
USA	47,982	112,835	163,320	324137
New Zealand	83,963	78,722	78,681	241366
Venezuela	-	87,259	-	87259
Egypt	-	25,540	-	25540
Total	2,784,066	2,973,561	2,739,250	

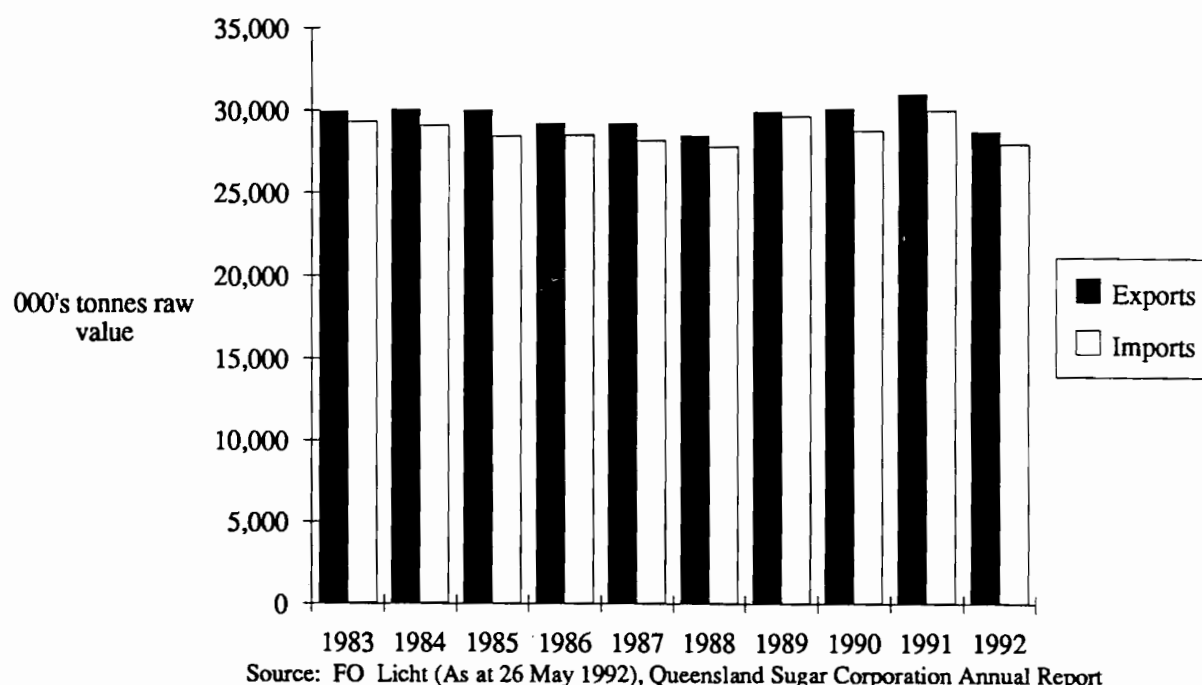
\* Estimate

Source : Sugar Board Annual Report, 1990-91

**TABLE 2.6.5: WORLD RAW SUGAR EXPORTS AND IMPORTS**

Year ended 31 August	Exports (thousand tonnes raw value)	Imports
1983	29,933	29,326
1984	30,049	29,111
1985	30,005	28,450
1986	29,233	28,472
1987	29,206	28,148
1988	28,458	27,812
1989	29,933	29,635
1990	30,123	28,764
1991	31,009	30,006
1992	28,703	27,916

Source: FO Licht (As at 26 May 1992), Queensland Sugar Corporation Annual Report

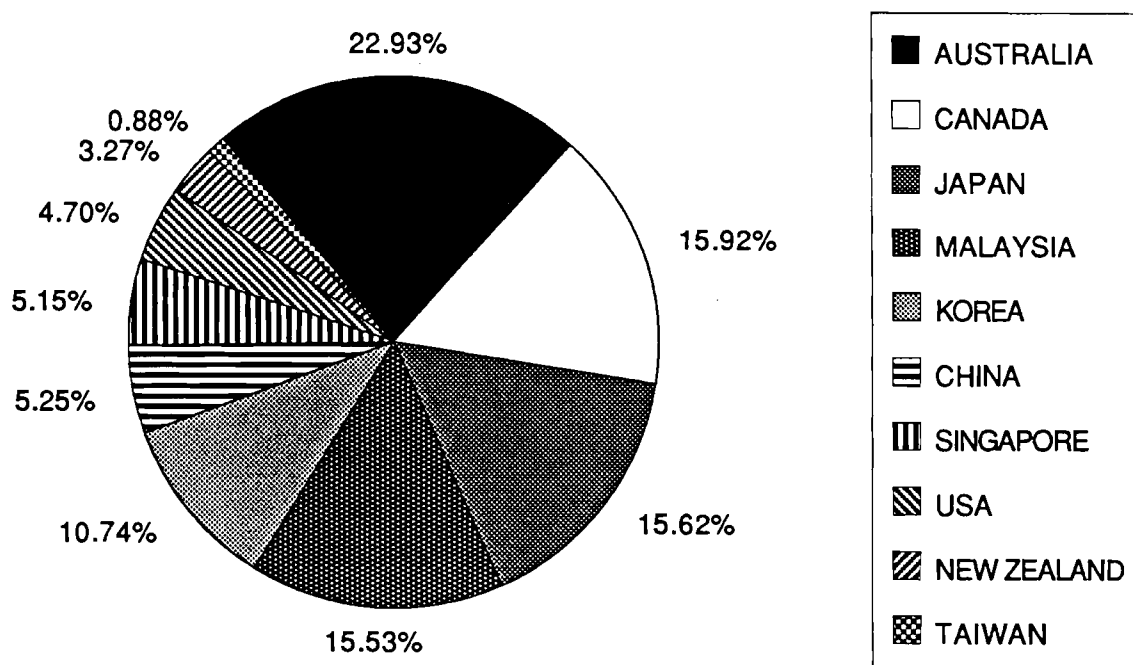
**FIGURE 2.6.2: RAW SUGAR WORLD EXPORTS AND IMPORTS****TABLE 2.6.6: QUEENSLAND SUGAR EXPORTS BY DESTINATION  
(12 MONTHS ENDED 30 JUNE 1992)**

Country by Destination	Tonnes Raw Value	Tonnes Actual
Australia	690,127	647874
Export		
Canada	478,340	449880
China (PRC)	154,643	148399
Japan	459,087	441500
Korea	320,727	302400
Malaysia	466,654	438895
New Zealand	98,352	92500
Singapore	154,704	145500
Taiwan	26,582	25000
USA	141,278	132872
Total Export	2,300,367	2176946
Total	2,990,494	2824820

Source: Sugar Board Annual Report, 1991-92

Figure 2.6.3 clearly depicts the export market shares compared with Australian domestic consumption. If Australia, with 17 million people, consumes nearly 23% of total production, imagine what the China (PRC) market potential is with 1.2 billion people!

**FIGURE 2.6.3: QUEENSLAND SUGAR BY DESTINATION  
(12 MONTHS TO 30 JUNE 1992)**



Source : Sugar Board Annual Report , 1991-92

## 2.6.7 FUTURE TRENDS

The world consumption of sugar is expected to grow, principally due to Asian demand resulting from population growth, rapid economic growth, higher disposable income and consequent higher living standards.

In Asia, changes in import demand will be mainly dominated by China (PRC), although import demand in 1991-92 was low relative to imports in previous years. Furthermore, it is expected that the Republic of Korea, Malaysia, China and Singapore will increase their imports of raw sugar for the purpose of toll refining. Since all of these countries import raw sugar from Australia, this implies continuing strong demand for Australian raw sugar in 1991-92. (ABARE, 1992.)

It is expected that the Thai and Australian sugar industries will be best placed to meet the demand of growing Asian markets, bearing in mind their comparative low cost of production and transport advantages due to proximity to the fast growing economies of Northeast and Southeast Asia. Table 2.6.7 details production and consumption projections up to 1996.



TABLE 2.6.7: GLOBAL AND AUSTRALIAN SUGAR OUTLOOK TO 1997

	1990-91	1991-92s	1992-93f	1993-94z	1994-95z	1995-96z	1996-97z	1997-98z
<b>WORLD<sup>a</sup></b>								
Production	115.20	115.50	116.20	117.00	118.00	119.00	120.50	124.00
Consumption	111.00	110.10	113.80	116.00	118.00	120.00	122.00	124.00
Stocks	35.00	38.60	40.10	40.50	39.90	38.30	36.20	35.60
<b>AUSTRALIA</b>								
Production	3.54	3.10	4.18	4.17	4.39	4.59	4.76	4.85

(Units in million tonnes)

a Sept-Aug years. b July-June years. s ABARE estimate. f ABARE forecast. z ABARE projection

Source : Agriculture and Resources Quarterly, Dec.1992, ABARE

'Sustained increases in production are likely to be concentrated in countries with growing demand and where producers are protected from world prices such as China, India and other Asian countries. Following the next rising price phase in the world price cycle, which is projected to peak around 1995-96, world production is projected to rise rapidly to reach 123 Mt in 1996-97.' (ABARE, 1992)

So the outlook for the Queensland sugar industry in terms of export expansion potential is quite encouraging.

Economic and political changes, especially in the former communist block countries, resulted in a re-orientation of world sugar trade during 1991-92, whilst the proposed signing of the North America Trade Agreement between Canada, the US and Mexico could pose potential problems to Australia in maintaining access to the Canadian and US markets. The sugar industry of Mexico is in the process of being restructured and privatised. Any expansion in production or gains in productivity could pose problems for Australia in maintaining its share of the Canadian market in particular.

Furthermore, as noted earlier, in the absence of an export based white sugar industry segment, Central Queensland may not benefit from future market development and growth opportunities as the world trade in white sugar is increasing and the world trade in raw sugar is declining.

Table 2.6.7 shows projected steady growth in world production and consumption of sugar up to 1996. Production forecasts for Australia show a similar steady increase.

## **2.6.8 RECENT AND PROPOSED CQ SUGAR DEVELOPMENTS**

### **(i) Completed**

As part of a \$42 million rationalisation program, an upgrade of the Mackay Marian mill was completed in mid 1991 to increase its crushing rate from 460 tonnes per hour to 670 tonnes per hour for the 1991 harvesting season when continuous crushing was introduced. (DBIRD, *ibid.*, 1992, Project E)

The mill now crushes the combined sugar crops of the Cattle Creek and Marian areas as a result of the closure of the Cattle Creek mill.

### **(ii) Under Consideration**

A \$200 million bagasse pulp mill has been proposed for the Mackay Area. Bagasse is a by-product of the sugar manufacturing process and is the residue from the cane stalk from which the juice has been extracted. The mill would be the first of its type to be established in Australia. Construction could commence in late 1993, with production of pulp being possible in 1995. (DBIRD, *ibid.*, 1992, Project No. 25)

Mackay Sugar recently announced a joint venture with E.D. & F. Mann of Great Britain to establish a sugar refinery adjacent to their present milling operations.

## **2.6.9 PROTECTION ISSUES**

On 1 July 1989, the Commonwealth Government Sugar Agreement lapsed and the embargo on sugar imports was lifted and replaced by an import tariff of \$115 per tonne. The tariff was reduced to \$76 per tonne in 1991 and an Industry Commission was set up to review and report on the Australian sugar industry.

The Commission released its findings in April 1992. The final report advised that tariffs were no longer needed by the industry (which it deemed to be highly efficient), and could be fully abolished in 1992. The Commission recommended a one-off payment of \$47 million to growers to compensate them for income loss.

However, the Commission supported the government's mooted reduction in the tariff from \$76 per tonne to \$56 per tonne from 1 July 1992.

There was a strong industry backlash to the proposed tariff cut. It was argued that most countries maintained regulated prices that were well above current market prices, and that the international sugar market was very corrupt, with varying degrees of subsidisation, tariff protection and dumping, whereas Australian producers, among the most efficient in the world, received no subsidy support.

The sugar tariff issue was quickly politicised and some very high-powered industry lobbying took place, although the Opposition did not jump to the defence of producers, being in favour of the phasing out of protection.

Producers were particularly anxious to have strong anti-dumping measures applied rigidly and without exception.

By early January 1993, the Federal Government was proposing a new structure for the sugar industry, which included a freeze on any further tariff reductions.

A joint Federal/Queensland Government development plan for the industry was announced in late January 1993.

The major points of the plan, which received the endorsement of peak growers were:

- ‘. A freeze on the tariff at \$56 a tonne for a minimum of four seasons, with a review in 1995/96. Changes depend on successful reforms arising from the Uruguay Round of trade negotiations.
- . A joint State and Commonwealth \$40 million commitment to infrastructure investment, especially irrigation and drainage, to promote sustainable production and improved yields.
- . Queensland Sugar Corporation’s acquisition powers and single desk selling arrangements to continue.
- . Assignments to continue as basis for agreement between millers and growers, but not to be used to constrain expansion.
- . Modification of price pooling arrangements and ownership of bulk terminals to be transferred to the industry.’ (*Morning Bulletin*, 3 February 1993)

This should provide a safety net for the industry in the medium term and restore the confidence of growers.

## 2.7 THE GRAIN AND SEEDS INDUSTRY

### 2.7.1 INTRODUCTION

The 1992-93 season worldwide will produce an increase in coarse grains of approximately 2% over 1991-92 levels, bringing the total to 823 million tonnes. However, in Australia, if current yields are maintained, coarse grains production will most likely fall by 0.1 million tonnes to around 6.8 million tonnes in 1992-93. Moreover, prices for coarse grains are likely to increase in the medium term, but at a rate that is lower than the inflation rate. (ABARE, 1992, *Coarse Grains Outlook*, p. 1)

World sorghum production export prices are projected to increase due to a general scarcity of feed grains, including feed wheat. (ABARE, 1992, p. 1)

Export prices of barley are also forecast to increase by approximately 10% in the coming months. (ABARE, 1992, p. 1)

With regard to oats, however, the outlook is not particularly favourable. Unlike other feed grains, there is no anticipated increase in the demand for oats in the near future. Hence, neither prices nor demand are expected to improve. (ABARE, 1992, p. 1)

### 2.7.2 THE AUSTRALIAN SITUATION

Within Queensland and New South Wales, short supplies of feed grains have been experienced whilst the drought has meant graziers' demand for grain to feed stock has increased substantially, so much so that demand has (to date) exceeded supply, with the result that Queensland has become an importing state rather than an exporting one. (ABARE, 1992, p. 2)

#### (i) Wheat

The Australian grain industry in general faced severe drought conditions during 1991, whilst the uncertainty created by protectionism in international grain markets resulted in a reduction of Australian wheat planting. The low returns experienced by Australia during 1990-91 induced farmers to plant alternative crops such as oilseed and coarse grains during 1991-92. (ABARE, 1992)

Australia exports some 30% of annual wheat production and faces an extremely tough competitive international environment in a market dominated by the US and the EC. Only about one-third of the volume of wheat currently traded internationally is free of

government credit programs, export subsidies or food aid programs. Moreover, the international wheat trade is dominated by the US and the EC who, together, account for approximately 60% of world trade in wheat. Given the Australian wheat industry's high proportion of exports (30% of production), and its lack of price and income support, events in the international wheat market are transferred directly to Australian growers who are more susceptible to international policy changes than their US, EC and Canadian counterparts.

Demand for wheat by developing countries is forecast to grow strongly with population growth, and as higher incomes, living standards and dietary improvements flow from higher levels of economic growth than experienced throughout the late 1980s and early 1990s.

During the 1991-92 season, world wheat production was much lower than the previous year. The Australian drought contributed to the reduction in the world wheat stock and boosted world wheat export prices. The International Wheat Council estimated world wheat production at 547 million tonnes during 1991-92. This is a significant decrease since the 1990-91 figure of 598 million tonnes.

(ii) **Barley**

Generally, barley constitutes 20% of the world's total grain production. In Australia, barley production on average constitutes 18% of total grain production. In recent years, China has been Australia's main malting barley importer, purchasing 713 kt of its total imports of 1,013 kt. Japan is our major customer of malt, taking 161 kt of Australia's exports of 352 kt. Future growth in beer demand is forecast to have the greatest impact on demand for Australian barley and malt exports. (ABARE, 1992, p. 5)

Domestic demand for barley is projected to increase over the medium, thus resulting in less feed grains being available for export. Most of this domestic demand will be in response to orders from intensive livestock industries. (ABARE, 1992, p. 5)

(iii) **Sorghum**

The beef feedlot sector will provide the impetus for increased demand for sorghum, diverting supplies from the pig and poultry industries. Total production is projected to increase from 1,090 kt in 1991-92 to 1,339 kt in 1996-97. Of particular note is that Central

Queensland is emerging as a significant supplier of sorghum exports, but this share may very well decline as local feedlot demand grows. (ABARE, 1992, p. 6.)

(iv) **Oats**

Oats production is expected to play a complimentary role to other feed grains, particularly wheat. Moreover, oats production is forecast to decline in the medium term, with exports stabilising at around 200 kt. (ABARE, 1992, p. 6)

### 2.7.3 RECENT PRODUCTION TRENDS AND FUTURE OUTLOOK

Table 2.7.1 shows the dominance of wheat production. However, between 1990-91 and 1991-92, the area under cultivation for wheat fell from 9,236 to 7,956 thousand hectares, a fall of 16%. The fall in yield, however, was much more pronounced, from 15,068 kt in 1990-91 to 9,913 kt in 1991-92, a fall of 53%.

The improvement forecast for 1992-93 indicated that a recovery to the 1990/91 level would be experienced. The toll taken by floods in Victoria and drought in Queensland would suggest that the projected recovery will not be attained.

For the major coarse grains, the end of the drought is forecast to result in significant price falls on the domestic market, which will offset the expected increase from export returns. (ABARE, 1992, pp. 4-5)

One major influence on CQ coarse grains in the medium term is that wheat prices have significantly improved over the last two years. As a result, land has been converted back to wheat production and away from barley and oats. The expansion of intensive livestock industries is forecast to result in an overall increase in the domestic consumption of coarse grains from 3.7 million tonnes in 1990-91 to 4.9 million tonnes in 1996-97. Furthermore, the AMLC has forecast that lot fed beef production will increase from 650,000 head in 1991 to 800,000 in 1993. (ABARE, 1992, p. 5)

By 1996-97, it is expected that beef feedlots will have increased their grain usage by more than 400 kt over present levels. This 400 kt represents less than half the overall projected increase in grain usage over the next four to five years. What this means is that domestic grain production will rise from 6.9 million tonnes (1991-92) to 7.3 million tonnes (1996-97), whilst domestic demand will lead to a decrease in reliance on exports. The single most important factor influencing domestic demand will be beef feedlots, with the pig and poultry sectors also of concern. (ABARE, 1992, p. 5)

**TABLE 2.7.1: AUSTRALIAN CROP PRODUCTION BY TYPE 1990-93**

COMMODITY	AREA '000 HA			PRODUCTION KT		
	1990/91	1991/92	1992/93f	1990/91	1991/92	1992/93f
Wheat	9236	7956	10351	15068	9913	15727
Barley	2510	2866	2830	4054	4058	4483
Oats	1051	1324	1160	1501	1545	1539
Triticale	106	71	77	186	90	122
Sorghum	401	551	629	890	1090	1306
Maize	52	53	54	200	232	217
Linseed	4	6	7	6	7	8
Canola	67	137	121	107	162	156
Safflower	28	32	28	18	19	19
Sunflower	198	74	141	186	78	145
Soybeans	36	41	50	70	71	84
Peanuts	22	20	22	36	41	42
Lupins	789	907	922	752	943	910
Field Peas	309	445	439	309	476	505
Chickpeas	167	211	158	196	220	177
Faba beans	44	58	68	53	64	86
Mung beans	24	29	30	14	17	16
Navy beans	9	4	9	9	3	8
Cow peas	5	5	5	4	4	4
<b>TOTAL</b>	<b>15058</b>	<b>14790</b>	<b>17101</b>	<b>23659</b>	<b>19033</b>	<b>25554</b>

f = ABARE forecast

Source: ABARE Crop Report, May 1992.

Table 2.7.2 shows that on average over the period 1989-90 and 1990-91, Australia accounted for approximately 4% of the total area in the world under wheat cultivation. The Australian yield of 1.6 tonnes per hectare was, on average, well below the global yield of 2.5 tonnes.

Projections up to 1996-97 show a slight increase to a 4.6% share for Australia in terms of global area under production, but declining yields.

**TABLE 2.7.2: GLOBAL AND AUSTRALIAN RECENT WHEAT PROJECTION TRENDS AND FIVE YEAR PROJECTIONS**

	UNIT	1989-90	1990-91	1991-92f	1992-93z	1996-97z
<b>WORLD</b>						
Area	million ha	228	232	223	228	229
Yield	t/ha	2.39	2.58	2.45	2.54	2.72
Production	Mt	544	598	547	579	624
Use	Mt	542	574	560	588	624
Closing stocks	Mt	119	143	130	121	113
Trade	Mt	94	91	104	98	106
Stocks to use	%	22	24.9	23.2	20.6	18.1
Trade to use	%	17.3	15.9	18.6	16.7	17
Price						
nominal a	US\$/t	160	117	140	134	160
real b	US\$/t	174	121	140	129	131
<b>AUSTRALIA</b>						
Area	million ha	9	9.2	7.9	10.2	10.7
Yield	t/ha	1.58	1.63	1.22	1.42	1.5
Production	Mt	14.2	15.1	9.6	14.5	16
Price						
nominal c	\$A/t	218	161	188	181	213
real d	\$A/t	236	166	188	175	177

a = Price of US com fob Gulf in US\$/t, July-June. b = In 1991-92 US dollars. c = Prices relate to Sydney region bulk grain retail prices, November-October average. d = In 1991-92 Australian dollars. f = ABARE forecast. z = ABARE projection.

Source: ABARE Outlook '92, National Agricultural and Resources Outback Conference

*These statistics put a realistic dimension on Australia's relative insignificance in this industry in terms of international bargaining strength.*

*It is clearly a case of being a price taker and not the world's most efficient producer, as we are often led to believe.*

#### 2.7.4 GRAIN PRODUCTION IN CENTRAL QUEENSLAND

Figure 2.1 on p. 29 shows that grains and seeds accounted for 4.1% of Central Queensland's total value of commodity production in 1990-91, making it the Region's third largest food commodity category next to beef and sugar.



Grain production is particularly important to the economy of the Central Highlands Sub-Region, where it ranks as the second most important food commodity category, with 8.7% of total value of commodity production. (Beef is ranked first at 14.1%.)

In the Rockhampton Sub-Region, grains and seeds accounted for 4.8% of value of commodity production in 1990-91, and in the Mackay Sub-Region 2.2%.

In June 1992, the Queensland Grain Growers Association announced that seed-wheat sales had been the second highest on record and that 70% of the available land in the Central Highlands and 90% in the Dawson-Callide Valley had been planted to wheat.

Prices were reported as being 'reasonably good, with ASW 10 percent protein fetching \$155 to \$160 net pool return'.

In addition, there was an expectation that price levels would be maintained due to record low wheat stocks in the US and below average production levels in the EC. (*Morning Bulletin*, 6 June 1992)

## 2.7.5 INDUSTRY RESTRUCTURING

The Federal Government has been attempting to speed up the restructuring of the Australian grain industry but industry leaders are divided, with 'strong opposition in some States to plans for the establishment of a \$500 million cooperative with export monopoly powers'.

This body, called NEWCO, is conceived as a 'grower-owned and controlled cooperative which retains the monopoly export status of the Australian Wheat Board.'

Queensland and West Australian growers' organisations expressed concern about one of the key elements of the cooperative proposal - that requiring growers to put up capital to take a major stakeholding in value-adding.

This horizontal integration and reduction of the processing/distribution chain between the grower and the end user is a strategy that has a lot of merit in that market signals can generate a faster response when growers' interests extend beyond the farm gate.

'The Queensland Grain Growers Association has proposed a State-based system of cooperatives with a separate body holding the monopoly powers and a voluntary federal value-adding company.' (*Australian*, 10 July 1992)

### 2.7.6 US WHEAT EXPORT SUBSIDISATION

The US Export Enhancement Program (EEP) has been a matter of great concern to the Australian wheat industry.

In particular, with the US subsidised sale of 550,000 tonnes of wheat to Pakistan in January 1993, it was clear that the EEP was no longer just a retaliatory mechanism directed at the EC to combat its subsidisation policies, but a weapon that could be used effectively to poach traditional Australian markets.

The Federal Government has made the appropriate protests, as have industry leaders, but to little effect, which is in itself an indication of Australia's 'bit player' status when dealing with big players such as the US and the EC.

A more aggressive approach to seeking out new niche markets for value-added grain products may prove to be more fruitful.

### 2.7.7 SOME POLICY POINTERS

From a CQ standpoint, the best prospects would appear to be in:

- . increasing lot fed beef production to absorb a larger proportion of feed grain production; and
- . concentrating on producing a range of value-added grain products for domestic and niche export markets.

## 2.8 THE WOOL INDUSTRY

### 2.8.1 INTRODUCTION

Australia is presently the largest wool producer and exporter in the world. This is evidenced by Australia's production of 1,091 kt of wool in 1990-91, with an export value in excess of \$3 billion. This is approximately 32% of the world's raw wool supply. (Australian Wool Corporation, 1991, *About Wool*, p.1)

The Queensland wool industry is largely conducted on grazing properties in the natural grasslands of the Southwest, Central West and Northwest. Only a small portion of the sheep numbers are on agricultural farms or mixed grazing properties, these being nearly all on the Darling Downs (ABS *Queensland Year Book*, 1991). In Central Queensland, the Central West Region (\$120 million) accounted for 34% of the total Queensland production (\$355 million) in 1990-91. Although this

represents only 3.1% of the value of commodities produced in Central Queensland, wool production is a vitally important industry throughout the Central West Region, being the staple industry for several Shires. For example, of the total value of agricultural commodities produced, wool accounts for 93% in Ilfracombe Shire, 70% in Aramac Shire and 60% in Longreach Shire.

## 2.8.2 STATE OF THE WOOL INDUSTRY

Throughout the 1980s, the Australian wool industry went from strength to strength.

'A significant devaluation of the Australian dollar in 1986 made wool relatively cheap to overseas buyers. Demand was high, prices rose and enough buyers could be found for all of the wool produced. Prices reached a peak of 1269c/kg clean in May, 1988. In 1988-89, wool earned \$5.9 billion in export revenue for Australia. More wool was sold than actually produced, the shortfall being made up from AWC stockpiles.' (Australian Wool Corporation, *Wool Kit*, p.7)

At the same time, a number of additional factors combined to cause a dramatic increase in the national sheep flock. High prices of previous seasons, excellent wool growing conditions, poor beef and grain prospects and the guarantee of a minimum price all resulted in a steep rise in sheep numbers during the 1980s. This can be exemplified by Australia's sheep flock increasing from 130 million in 1982-83 to 165 million by the end of 1989. By 1990, wool production in Australia had peaked at a record 1,029 million kilograms of wool - an increase of 60% since 1983-84. (Australian Wool Corporation, 1991, p.1)

'During the 1980s demand for wool had begun to decline. In 1980, economic and political difficulties in USSR and China led both countries to drastically reduce the amount of wool bought. By 1990, they were buying virtually nothing which left a major shortfall in demand. Other facts such as the Gulf War, open speculation about the future of the Reserve Price Scheme and a general economic breakdown in western economies had an adverse affect on wool sales.' (Australian Wool Corporation, *Wool Kit*, p.8)

## 2.8.3 THE RESERVE PRICE SCHEME (RPS)

The RPS was initially established to provide both woolgrowers and wool users with some protection against the impact of fluctuating prices. The scheme's operation was funded by wool growers through a levy on their wool sale proceeds. At the beginning of each season the Australian Wool Corporation (AWC) announced the Minimum Reserve Price levels for the coming selling season. However, the demand/supply imbalance discussed previously put increasing pressure on the RPS. During 1989-90, the AWC purchased 52% of the wool

offered for sale at auction. The stockpile rose to over three million bales. In May 1990, sheep flock numbers had increased to 170 million and the AWC was buying over 76% of offerings at wool auctions (Australian Wool Corporation, 1991).

In the same month, the RPS was withdrawn under pressure from adverse market conditions and political events. The Government then intervened to drop the floor price in May 1990 and, by February of the following year, the RPS was suspended. (Australian Wool Corporation, 1991)

The Government's intervention in May 1990 dropped the floor price of wool from 870c/kg clean to 700c/kg. In February 1990, wool was sold for the first time in twenty years without the support provided by the RPS. The Market Indicator immediately fell to 428c/kg clean. Prices have since improved but they are substantially lower than those in the late 1980s. In addition, any recovery in wool prices in the short term is likely to be contained by the release of stockpiled wool. (Australian Wool Corporation, 1991)

#### 2.8.4            **PRODUCTION - RECENT TRENDS AND FUTURE PROJECTIONS**

In response to lower wool prices, wool production began to decline in the 1990-91 season. Australian shorn wool production fell from approximately 1,025 million kilograms in 1989-90 to 890 million kilograms in 1991-92. Production is forecast to fall by a further 2% in 1992-93 and to continue falling until the mid-1990s. The decline in production reflects the combined effects of a large decline in sheep numbers - a reaction to the low returns from wool growing - and dry seasonal conditions in many wool growing areas. (ABARE, *Outlook 92*, p.2) In 1994-95, production is projected to stabilise. Table 2.8.1 depicts projections of key wool growing statistics up to 1997.

Sheep numbers are projected to decline up to 1996 with a recovery in numbers expected to commence in 1997. Stockpiles, which stood at 811,000 bales in 1990, are expected to be gradually released onto the market, reducing to 56,000 bales in 1996. So what we have is a chronic over-supply situation.

Export value in real terms is expected to increase in 1993, but thereafter to decline steadily, with a particularly precipitous drop in 1995.

The continuing effects of drought in the states of New South Wales and Queensland has caused a big drop in sheep numbers. In 1992-93, Queensland is expected to experience the greatest fall in production - down 17% to 62 million kilograms following a 26% decline in the 1991-92 season. The bulk of this decrease will be experienced by Southern Queensland, where drought and a shift to cropping have almost halved sheep numbers. The CQ wool industry has held up fairly well. Although relying heavily on summer rains, production is expected to

**TABLE 2.8.1: SUMMARY AND PROJECTIONS OF KEY AUSTRALIAN WOOL STATISTICS**

		1990	1991	1992	1993	1994	1995	1996	1997
		/91	/92p	/93 f	/94 z	/95 z	/96 z	/97 z	/98 z
	Unit								
Sheep Numbers (a)	million	167	151	147	143	140	137	135	136
Sheep Numbers (b)	million	162	148	143	139	136	133	131	132
Sheep Numbers Shorn	million	211	181	170	159	152	152	154	156
Cut Per Head	kg	4.69	4.42	4.62	4.6	4.62	4.64	4.66	4.67
Wool Production (c)	kt	989	875	849	793	766	767	776	790
Shorn	kt	993	801	785	729	702	705	716	730
<b>AWC/AWRC</b>									
closing stocks (d)	'000 bales	4 608	4 069	3 841	3 188	2 335	1 540	830	318
	kt	811	716	676	561	411	271	146	56
<b>Market Indicator</b>									
Nominal	c/kg clean	657	557	545	575	595	614	632	651
Real (e)	c/kg clean	679	565	545	556	558	557	553	551
Exports	kt	715	928	874	923	920	896	883	853
<b>Export Value</b>									
Nominal	\$m	2 887	3 829	3 354	3 520	3 624	3 654	3 744	3 726
Real (e)	\$m	2 985	3 887	3 354	3 401	3 400	3 313	3 361	3 333

a Sheep and Lambs at 31 March on enterprises with an estimated value of agricultural operations of \$5000.

b At 31 March on enterprises with an EVAO of \$22500 or more. c Includes shorn wool, wool on sheepskins, fellmongered and slipe wool. d Australian Wool Corporation until 1990-91 and Australian Wool Realisation Commission thereafter. e In 1992-93 dollars. f ABARE forecast. p Preliminary. z ABARE projection.

Source : ABARE, Agriculture and Resources Quarterly, Dec.1992

decrease only slightly and stock rates will not be effected by moves to cropping.  
(Australian Wool Corporation, *Wool News*, 1992)

## 2.8.5 PRICES - CURRENT AND FUTURE TRENDS

The forecast average price for wool in 1992-93 is 545c/kg clean. This is about 12c/kg below the 1991-92 average. This pessimistic outlook is based on 'very sluggish income growth in Europe and Japan and instability in currency and financial markets...'. In addition, Italy, due to prevailing high interest rates, was not accumulating wool and was tentative in its purchasing activities due to exchange rate instability. (*Agriculture and Resources Quarterly* 1992, Vol. 4 No. 4, p. 458)

The forecasts covering the next five years, depicted in Table 2.8.1, indicate that wool production will gradually decline, with stockpiles supplying the anticipated increase in export demand in 1993 and 1994, but with no tendency for prices to rise.

A recovery in economic growth in wool buying countries is expected to hold up prices despite the 'price depressing effects of stockpile sales...' (*Agriculture and Resources Quarterly* 1992, Vol. 4 No. 4, p. 459)

However, while it is possible that a small price rise may take place in the medium term, it is not expected to exceed the historical average as it did in the 1980s. (ABARE, 1992, National Agricultural and Resources Outlook Conference, *Wool Outlook*, p.2)

## 2.8.6 EXPORTS - CURRENT AND FUTURE TRENDS

It is expected that the volume of Australian wool exports will fall in 1992-93, and this fall will be accompanied by a decline in value from \$3,887 million in real terms in 1991-92 to \$3,354 million in 1992-93. (ABARE, *Agriculture and Resources Quarterly* 1992, Vol. 4 No. 3, p.315)

There is a possibility of increased sales to the People's Republic of China providing an offset to this revenue loss.

Wool exports in 1993-94 are forecast to increase due to increased demand generated by the lower prices. In addition, higher global economic growth rates, particularly in Northeast Asia, should lead to an increase in demand for wool and woollen goods. It is anticipated that sales from wool stockpiles will constitute the majority of exports as wool production continues to decline. Exports are projected to fall from 923 kt in 1993-94 to 853 kt in 1997-98. (ABARE, 1992, p.461)

## 2.8.7 THE CQ WOOL INDUSTRY

Wool accounted for 3.1% of Central Queensland's value of commodity production in 1990-91. The Central West Sub-Region accounts for all of Central Queensland's wool production with wool occupying a primary position and accounting for approximately 50% of the total value of commodity production.

This heavy reliance on wool production has rendered the Central West particularly vulnerable to a decline in the fortunes of the industry.

Whilst scouring or top making operations would provide jobs in the Central West, it would require a considerable expansion in export demand to drag the industry out of the doldrums.

Increases in the industrial demand for wool, for fire and heat insulation purposes, replacing some petrochemical products whose production is decidedly environmentally unfriendly, may result in a rejuvenation of the industry.

All of the Future Search Workshops conducted in the Central West expressed the desirability of establishing wool scouring and top making plants in the Region. The need for a wool processing industry was also high on the list of industry development priorities identified by the Needs and Opportunities Survey.

DBIRD has also recognised this need and is investigating the feasibility of establishing a wool scour and mutton abattoir in the area.

## 2.9 THE SEAFOOD INDUSTRY

### 2.9.1 INTRODUCTION

There is a deficiency in hard data on Central Queensland's seafood industry. There was conflict between estimates acquired from different sources. Seafood accounted for approximately 2.5% of total CQ value of commodity production in 1990-91.

### 2.9.2 THE AUSTRALIAN FISHING INDUSTRY

In 1991-92 the value of seafood production in Australia was estimated to have risen by 4% on the previous year to \$1.2 billion, of which \$0.7 billion was exported.

ABARE's 1992 assessment of the future prospects of the industry are not particularly sanguine:

'Declining catch rates, changing market conditions, growth in recreational fishing and the increasing environmental awareness of Australian society as a whole are all factors putting pressure on fishermen to adjust their fishing and marketing activities. The medium term outlook for the profitability of the fishing industry is highly dependent on how well the industry responds to these and other adjustment pressures'; and

'Seafood exports are unlikely to grow significantly this year and expected reductions in fish catches and export prices for prawns may put downward pressure on the value of fisheries exports in the medium term. However, these falls may be offset by gains achieved through better export marketing of seafoods, with these gains being

stimulated by improvements in fisheries management arrangements'. (ABARE, 1992, p. 1)

This is all very speculative, with the ubiquitous call for better management and general export practices, better packaging, better market targetting and more refined value-adding being echoed.

'Value-adding in this context is not just extra processing. Rather, it embraces any marketing activities which raise the net value of fisheries production. These could include quality improvement, better packaging, greater use of by-products and the use of technology. What it comes down to is exporting a product that the consumer wants and will pay a premium for.' (ABARE, 1992, p. 1)

In 1990-91, Japan was responsible for 65% of Australia's prawn exports, 90% of canned abalone exports and 46% of rock lobster exports.

Some 50% of Australia's fish export revenue, valued at \$106 million in 1990-91, came from the sale of orange roughy fillets to the US.

### 2.9.3 QUEENSLAND FISHERIES PRODUCTION

Exact fisheries production figures by Region are impossible to procure. Although the Queensland Year Book contains figures for Fisheries Production, the progressive updating of these figures appears to have ceased in 1981. The latest data available which relate to 1980-81 show Queensland production at \$86.3 million.

Table 2.9.1 shows total fishing production values of Australia and Queensland for the past three years. Queensland's share has fallen from 18.4% in 1989-90 to 14% in 1991-92.

**TABLE 2.9.1: GROSS VALUE OF AUSTRALIAN FISHERIES PRODUCTION  
1989/90-1991/92**

	1989-90 \$'000	1990-91 \$'000	1991-92 \$'000
Queensland	152,282	138,484	138,942
Australia	829,089	915,867	989,806
Qld. as % of Aust.	18.37	15.12	14.04

Source: QDPI Central Library (estimates have been questioned by professional sources)



Figures provided by QDPI for the production and export of prawns shows 165,000 tonnes valued at \$226 million produced, with 10,000 tonnes valued at \$115 million exported. (QDPI Rural Export Facts Sheet, Fish and Other Seafood, p. 1)

As 99% of exported prawns are caught in Northern Queensland waters, the export of prawns caught in Central Queensland waters would appear to be insignificant.

Table 2.9.2 shows the Queensland seafood production breakdown by type for the four year period up to 1991.

There is a severe drop in fish catches from 7,117 tonnes in 1990 to 4,987 tonnes in 1991 - a fall of 31%.

Mollusc production (mainly scallops) fell from 256,437 baskets in 1990 to 135,658 baskets in 1991 - a fall of 49%.

**TABLE 2.9.2: QUEENSLAND PRODUCTION DATA 1988-1991**

Species (tonnes)	1988	1989	1990	1991
Crabs	1,157	1,281	1,401	1,646
Estuarine Fish	5,071	6,088	7,117	4,987
Lobsters	454	506	439	463
Molluscs (baskets)	131,482	124,013	256,437	135,658
Pelagic	1,023	1,236	1,279	900
Prawns	7,205	7,546	6,930	7,406
Reef	1,954	2,539	2,990	2,828
Total (excluding Molluscs)	16,864	19,196	20,156	18,230

Source: QDPI Fisheries Services, Queensland Production Data by Month

#### 2.9.4 THE CQ FISHING INDUSTRY

Information on the fishing industry in the CQ Region is very scarce. The Bureau of Census and Statistics have no worthwhile documented information. The following information was received from the Queensland Fish Management Authority.

The Authority has instituted a log book program where all professional fishermen are sending in a monthly return. This program has been running for approximately

six months and no reliable information can be supplied at this stage. The first reports are expected to be available in March-April 1994.

The following information on the scallop industry has been collected over the past twelve months.

Approximately 90% of the Queensland catch comes from the area between Mackay and Gladstone. This area yielded approximately 380 tonnes of scallops, valued at 6.8 million dollars.

There are about 100 scallop harvesting vessels operating out of CQ ports. These vessels would be manned by approximately 250 people.

There are nine processors in the CQ Region who employ a large number of casual staff. No reliable estimate can be placed on the number of people involved.

Central Queensland contains the main scallop fisheries in Queensland. In Central Queensland in 1990/91, 80% of scallop exports went to Hong Kong and the remainder mainly to Singapore and Thailand. The estimated volume of exports was 1,400 tonnes, with an estimated value of \$28 million.

Central Queensland, for fishing industry purposes, is defined as covering the area from Townsville to Tin Can Bay. The main scallop ports in this area are Mackay, Yeppoon, Gladstone and Hervey Bay.

Queensland scallops are one of the most sought after in the world, having good flesh colour. The scallops are exported without the roe. The main competitor is Canada. Other Australian scallop fisheries are located in Victoria, Tasmania and Western Australia. (QDPI, 16 January 1992)

## 2.9.5 AQUACULTURE PRODUCTION

Aquacultural production for Queensland for the last three years is summarised in Table 2.9.3, and CQ production for the same period is summarised in Table 2.9.4. It can be seen from these statistics that the industry is at a fledgling stage.

Due to the parlous state of commercial knowledge on this industry, it is extremely difficult to assess its future potential. Technical and scientific research appears to have outpaced market research and financial planning.

**TABLE 2.9.3: QUEENSLAND AQUACULTURAL PRODUCTION**

	1989/90		1990/91		1991/92	
	Tonnes	\$'000	Tonnes	\$'000	Tonnes	\$'000
Prawns	417.10	4500	755.10	8200	714.90	8500
Freshwater crayfish	31.08	496	32.80	474	39.90	577
Barramundi	33.07	430	92.42	1105	134.90	1540
Hatchery prod.					6.99**	1610
Oysters	415.00*	994	493.30*	1173	383.10*	1040

\* 000 doz    \*\*million fingerlings

Source: Unpublished production survey data (Lobegeiger and Barlow, 1992)

**TABLE 2.9.4: CENTRAL QUEENSLAND AQUACULTURAL PRODUCTION**

Industry	No. of permit holders		Production (kg)		Value (\$)	
	1990/91	1991/92	90/91	91/92	90/91	91/92
Barramundi	1	2	0	825	0	2075
Hatchery	2	2	9000*	52000*	7100	18000
			800**	700**	8000	20500
Prawns	0	1	0	225	0	1200
Redclaw	0	4	0	398	0	7164

\* fingerlings    \*\* Saratago

Source: Unpublished production data (Lobegeiger and Barlow, 1992)

## 2.10 THE MINING INDUSTRY (EXCLUDING COAL)

### 2.10.1 INTRODUCTION

Metallic and non-metallic minerals (other than coal) constituted approximately 1.6% of CQ value of commodity production in 1990-91. The total value, at mine, of CQ mineral production in 1990-91 was \$86.2 million, excluding the value of coal and natural gas. On a comparable basis, this was a decrease of 2% from the 1989-90 production figure of \$87.9 million. Major components of total CQ mineral production for 1990-91 were: gold \$42 million (37%); natural gas and condensate \$26.8 million (24%); construction materials \$23.2 million (21%); limestone \$7.8 million (7%); and salt \$7.5 million (Table 2.10.1).

### 2.10.2 GOLD PRODUCTION

Central Queensland gold production in 1990-91 was not adversely affected by the closure of Mount Morgan, Queensland's fabled 'Mountain of Gold', in November 1990. The mine shut after 108 years of operations and is now being rehabilitated and having its historical features preserved. Despite a 3.1% fall in the value of gold production, the quantity of gold produced rose by 2,989 kilograms, an annual rise of 66.7% (Table 2.10.1). Gold in Central Queensland is produced predominantly in the Blair Athol district. A series of small operations in the Rockhampton-Gladstone Area also contribute to CQ gold production.

### 2.10.3 NATURAL GAS

Natural gas production in Queensland increased by 47% to 937 gigalitres in 1990-91, compared with 636 gigalitres in 1989-90, and the production value rose by 61% to \$75 million. (ABS *Queensland Year Book*, 1993) Central Queensland production value of natural gas in 1990-91 was \$26.8 million, or 35.7% of total Queensland production. (Department of Resource Industries) The North Denison Fields south of Emerald are the source of Central Queensland's natural gas. The CQ Region has considerable reserves of methane gas, which is located mainly in the Bowen Basin.

In May 1991, a 96 kilometre extension to the State Gas Pipeline from Gladstone to Rockhampton was completed at a cost of \$20 million, and the first gas was supplied to the magnesite processing plant at Parkhurst, North Rockhampton, as well as other industries and domestic consumers. An extension of the gas pipeline was constructed into Gladstone City at the end of 1991 with all of the city expected to be connected by June 1994.

**TABLE 2.10.1: CQ MINERAL PRODUCTION (EXCLUDING COAL)  
1989/90 AND 1990/91**

Type of Mineral	1990-91		1989-90	
	Quantity Produced*	Value (\$'000)	Quantity Produced*	Value (\$'000)
<b>Metallic Minerals</b>				
GOLD BULLION (a)	7468	42051.00	4479	43386.62
IRONSTONE	200	0.80	450	0.90
<b>TOTAL METALIC MINERALS</b>		<b>42051.80</b>		<b>43387.52</b>
<b>Other non-metallic minerals</b>				
LIMESTONE	1252062	7833.80	1183195	7480.81
SALT	237252	7486.10	237021	7705.98
GEMS (b)				
Sapphire		2279.00		3299.90
Chrysoprase		1670.80		546.86
Opal		691.90		1159.22
Agate		5.40		9.00
Zircon		0.30		0.10
Other gemstones		14.50		12.00
BRICK AND CEMENT CLAY	11138	727.90	139976	763.64
MAGNESITE	1567	98.50	1619	75.60
SILICA	21288	54.70	15325	34.79
<b>TOTAL OTHER NON-METALLIC MINERALS</b>		<b>20862.90</b>		<b>21087.90</b>
<b>Construction Materials</b>				
CRUSHED AND BROKEN STONE	2978628	23051.47	3403000	22130.00
OTHER QUARRY MATERIALS	86322	192.18	1122000	1329.00
<b>TOTAL CONSTRUCTION MATERIALS</b>		<b>23243.65</b>		<b>23459.00</b>
<b>Natural Gas</b>				
NATURAL GAS	342730000	26418.84	-	-
NATURAL GAS CONDENSATE	2911	433.78	-	-
<b>TOTAL NATURAL GAS</b>		<b>26852.62</b>		<b>-</b>
<b>TOTAL ALL MINERALS (excluding natural gas)</b>		<b>86158.35</b>		<b>87934.42</b>
<b>TOTAL ALL MINERALS</b>		<b>113010.97</b>		<b>-</b>

(a) includes alluvial gold

(b) value only collected for gemstones

\* all data in tonnes except gold (in kilograms) and natural gas (in kilolitres)

Minor discontinuity of data due to change in Mining District boundaries

Source: Annual Report, Qld. Dept. of Mines 1989-90, Queensland Government Mining Journal, Feb. 1992, Quantity and Value of Production (Const. Materials and Gas) by Selected Statistical Divisions, Dept. of Resource Industries, ABS Qld. Sand, Gravel and Quarry Production, 1989-90, Cat.No. 8403.3

#### 2.10.4 MAGNESITE PRODUCTION

The most significant non-metallic metals produced in Central Queensland are magnesite, limestone, salt and gemstones.

The \$215 million Queensland magnesite project consists of an opencut mine at Kunwarara, 60 km northwest of Rockhampton, and a magnesite processing plant at Parkhurst, North Rockhampton. Mining operations commenced in April 1991 and commissioning of the plant commenced in July 1991. The first sale of product was in November 1991. The plant commenced commercial operations on 1 January 1992 and the official opening was on 20 February 1992.

The Kunwarara Magnesite Deposit was discovered in 1985 and is one of the largest and purest in the world. Two lease areas, comprising approximately 10% of the total deposit, have been dedicated to this particular project and will provide sufficient feed material for at least forty years.

The project involves the opencut extraction of magnesite from part of the total resource of 1.2 billion tonnes, which contains 500 million tonnes of unbeneficiated magnesite. Some 2 million tonnes of run-of-mine material will be won annually to produce 385,000 tonnes of raw magnesite plant feed.

At full production, expected in 1995, the plant will process this raw magnesite to produce around 150,000 tonnes per annum of high-grade dead-burned and 25,000 tonnes of electrofused magnesite for export to refractory brick manufacturers.

An operational workforce of 170 people is employed at the mine and plant. (DBIRD, *Major Development Projects and Proposals in Queensland*, Issue No. 12, 1992)

Dead-burned magnesite production since the start-up of commercial production totalled 72,443 tonnes in December 1992, and electrofused magnesite produced in the same period totalled 6,370 tonnes. The build-up in production to meet projected market demand may take up to five years. (Queensland Metals Corporation Limited, Quarterly Report, December 1992) Magnesite has a wide range of commercial uses, and some scientists believe that magnesium will be *the* metal of the 21st century and revolutionise the car manufacturing industry. (*Sunday Mail*, 15 March 1992) Queensland Metals Corporation Limited (QMC) has proceeded to establish five separate joint ventures based solely on the Kunwarara Magnesite Deposit (Figure 2.10.1).

A magnesium metal smelter to be located at Yarwun Industrial Estate north of Gladstone is under investigation. The estimated cost of the pilot plant is \$50 million and the full-scale operational smelter \$700 million.

**FIGURE 2.10.1: KUNWARARA MAGNESITE - JOINT VENTURE DETAILS**

1	2	3	4	5
<b>QMAG</b>	<b>ENVIROMAG</b>	<b>CEMAG</b>	<b>MAGMETAL</b>	<b>FLAMEMAG</b>
Refractory Magnesia for the Steel Industry	Calcined Magnesia for pollution control	Cements and Building Products	Magnesium for the Car Making Industry	Filler for Fire Resistant Plastics
Queensland Metals 50% Pancontinental Mining 40% Radex Heraklith 10%	Qld. Metals 50% ICI Australia 50%	Qld. Metals 50% Qld. Cement 50%	* Qld. Metals 10% * MIM Holdings 45% * Ube Industries 45%	Qld. Metals 100% Negotiating Joint Venture Agreement
In Production	Industrial and Market R andD 1991/92	Research 1991/92	Negotiating J.V. Pilot Plant Design	Process and Market Evaluation

Source: CQ Unlimited, Morning Bulletin, 1992

The pilot plant will have the capacity to produce 1,000 tonnes per annum of magnesium metal and the full-scale smelter 60,000 tonnes per annum. (DBIRD, *ibid.*, Project No. 30)

The Yaamba Magnesite Deposit, 35 km northwest of Rockhampton, is presently under investigation and could commence production in 1996. Proven reserves to date are estimated at 188 million tonnes of high-grade magnesite contained in 460 million tonnes of ore. (DBIRD, *ibid.*, 1992, Project No. 36)

### 2.10.5 CONSTRUCTION MATERIAL PRODUCTION

Production of construction materials - sand, gravel, crushed and broken stone, dimension stone (for example, shaped marble, sandstone slabs), fill and so on - caters almost exclusively to the domestic market. The sand, gravel and quarry production industry includes hundreds of small, medium and large scale operators throughout the State, but it is dominated by three or four major companies. (ABS, *Queensland Year Book*, 1993) The production value of construction materials in Central Queensland was \$23.2 million, or 16.5% of Queensland's total, in 1990-91. (Queensland Department of Resource Industries) In 1990-91, Central Queensland produced 6.3 million tonnes or 15.6% of Queensland's total production of 40.5 million tonnes.

### 2.10.6 OTHER

#### (i) Limestone

The value of limestone production in 1990-91 was approximately \$7.5 million, which represented an increase by 4.7% on the 1989-90 level. The limestone is quarried at various sites between Marlborough and Gladstone.

Queensland Cement Ltd (QCL) is rationalising its Queensland based operations in order to improve its technology.

Construction of a cement mill, clinker storage and bagging and palletising facility at Gladstone commenced in late 1991 and is expected to be completed by mid-1993.

A doubling of the size of the plant's cement clinker production capacity is also planned.

The total estimated cost of this expansion is \$160 million. This includes the construction of a 30,000 tonne capacity cement receival storage and distribution terminal at the Port of Townsville to coincide with the closure of QCL's Townsville cement manufacturing operations in late 1993. (DBIRD, *ibid.*, 1992, Project No. 9)

(ii)           **Salt**

Salt is harvested in the Port Alma area by ICI Pty Ltd, from where it is shipped to the Botany Bay plant.

(iii)           **Gemstones**

Central Queensland's gemfield production totalled \$4.7 million in 1990-91, down 7.3% on 1989-90 production value. Sapphires (\$2.8 million) are mined in the Anakie area, chrysoprase (\$1.7 million) in the Rockhampton Area and opals (\$0.7 million) west of Longreach.

## 2.10.7           **IDENTIFIED MINERAL SANDS RESOURCES**

The Cape Clinton area near Shoalwater Bay has known reserves of approximately 37.5 million tonnes of mineral sands, consisting mainly of rutile, ilmenite and zircon. (ABS *Queensland Year Book*, 1993) The granting of mining leases for the Clinton Mineral Sands project was announced by the Commonwealth Government in October 1990. The dredge and wet concentration plant, dry mill and associated facilities is estimated to cost \$70 million and the beneficiation plant \$85 million. Mining is planned to commence in 1995. Synthetic rutile production is expected to commence in late 1995. (DBIRD, *ibid.*, 1992, Project No. 46)

Other mineral sands prospects are being investigated. The Bayfield Mineral Sands project has estimated resources of 2,400 million tonnes of heavy mineral sands, which could support a 500,000 tonnes a year operation over 25 years, extracting ilmenite, rutile and zircon. A feasibility study at a cost of \$15 million has been carried out. The estimated development cost of this project is \$600 million. (DBIRD, *ibid.*, 1992, Project No. 43)

A feasibility study has been completed on the mining of a 220 million tonne mineral sand reserve at Rocky Point near the township of Agnes Water, 70 km southeast of Gladstone, in Miriam Vale Shire. The project is awaiting suitable



product marketing arrangements and the results of downstream processing investigations. The estimated development cost is \$80 million. The products would be exported to world markets through the Port of Gladstone. (DBIRD, *ibid.*, 1992, Project No. 52)

Minproc Titanium Australia Pty Ltd plans to construct a titanium metal plant in Calliope Shire, 12.5 km northwest of Gladstone, at a Stage I estimated cost of \$200 million. An impact assessment study has been completed, but further work has been suspended subject to project financing, commercialisation of available technology and favourable market conditions.

Stage I of the plant would produce 5,280 tonnes per annum of titanium metal from 9,500 tonnes of synthetic rutile. The plant is to be designed to allow for a doubling of production, which is expected in the early years of operation. Stage 2 would see an increase in production capacity to 10,560 tonnes per annum of titanium metal. (DBIRD, *ibid.*, 1992, Project No. 32)

#### 2.10.8 METHANE GAS

Exploration of the Bowen Basin's rich methane gas reserves is underway to determine the viability of recovering this valuable resource from coal seams. A Queensland/Japanese joint venture drilled three exploratory test wells during 1991. The exploration program for this project is expected to be completed by the end of 1993.

Three separate locations have been selected for methane gas recovery operations:

- (i) Mount Isa Mines Limited is the developer of the Central Bowen Basin (Emerald to Dingo) Methane Gas Project. The project entails the recovery of methane gas for use as fuel or chemical feedstock. (DBIRD, *ibid.*, 1992, Project No. 59)
- (ii) Mount Isa Mines Limited has a 25% interest in the development of the Northern Bowen Basin (between 100 km and 300 km west of Mackay) Methane Gas Project. The joint venture partner is MGC Resources Australia Pty Ltd, a subsidiary of Mitsubishi Gas Chemical Company (Japan), which is proposing to utilise the methane gas reserves of the Bowen Basin to develop a world-scale methanol plant in Queensland to produce methanol for export and domestic consumption. The estimated exploration cost of the project is \$32 million. (DBIRD, *ibid.*, 1992, Project No. 60)
- (iii) Mount Isa Mines Limited is also the developer of the Southern Bowen Basin (3,000 sq kms in the Moura Area between Theodore and Baralaba) Methane Gas Project. (DBIRD, *ibid.*, 1992, Project No. 61)

### 2.10.9 OIL SHALE

The CQ Region's oil shale reserves are massive. Some idea of the tremendous economic potential of this resource, with the development of cost effective oil recovery technology, is provided by an examination of four of the richest deposits.

#### (1) The Condor Deposit

A US\$24 million feasibility study on the Condor Oil Shale Deposit, 130 km west of Mackay, was completed in 1984.

'While the size, scope, timing and technology of the Condor project has not yet been determined, the completed feasibility study has indicated a 26.7 million barrel per annum treated synthetic crude oil plant to be the most economic option yet considered.'

Details of such a plant are: a capital cost of US\$2,300 million; a twelve year design and construction period with first production in year six; a nominal 32 year project life; an on-site peak construction and operations workforce of 3,000; and a permanent workforce at full production of 1,700.

'The upgrading of raw oil shale to refinery feedstock is part of the project design. *In situ* resources total 8,100 million barrels of oil in the main shale seam, at a cut-off grade of 50 litres per tonne on a dry basis.'

Japan Oil Shale Engineering Company tested a bulk sample of 20,000 tonnes of Condor oil shale at its newly designed 3,000 tonne per day plant in Kyushu over the period May-October 1987. Satisfactory recoveries were reported, indicating confidence in the new processing technology.

'A 110 km pipeline to the Port of Mackay is favoured for the product's transfer.' (DBIRD, *ibid.*, 1992, Project No. 56)

With an extension of the natural gas pipeline from Canoona north of Rockhampton to Mackay, a link would be provided for feeding the methane gas into the State grid.

#### (2) The Rundle Deposit

Located 27 km northwest of Gladstone in Calliope Shire, this project could come on line in four or five years' time.

'Development is proposed of an opencut shale mine and processing plant to produce synthetic crude oil which could be used as refinery feedstock. *In situ* reserves are estimated at 2,600 million barrels of oil shale.' (DBIRD, *ibid.*, 1992, Project No. 66)

(3) **The Stuart Deposit**

The oil shale deposit commences 8 km northwest of Gladstone and extends 18 km northwest. It is 3 km wide. A processing plant would be located in Calliope Shire 15 km northwest of Gladstone.

Construction of a small-scale demonstration plant at a cost of \$145 million could commence in late 1993 and would take about eighteen months to complete. Commissioning is scheduled for late 1994, with production commencing in early 1995.

'The *in situ* reserves of this deposit are estimated at 3 billion barrels of crude oil at a cut-off grade of 50 litres per tonne at 0% moisture.'

'The pilot plant would have a processing capacity of 6,000 tonnes of oil shale feed per stream day to produce about 4.1 million barrels per year. Full scale plant size is envisaged at 60,000 barrels per day.'

'The facility planned would produce about 244 tonnes per day of hydrogenated naphta and 339 tonnes per day of middle end light fuel oils. At full production, 2.2 million barrels would be produced annually. Production of syncrude is planned as (?) subsequent stages of expanded production.'

'Permanent employment for about 120 people would be provided by the demonstration plant while the construction workforce would average 160 people.' (DBIRD, *ibid.*, 1992, Project No. 67)

(4) **The Yaamba Deposit**

Located in Livingstone Shire 35 km northwest of Rockhampton, 'the Yaamba oil shales will allow almost total use of the deposit to produce up to 4.2 billion barrels of liquid synfuels'.

'The production capability includes a 4.2 billion barrels of upgraded oil shale suitable as high-quality refinery feedstock and up to 900 million barrels of premium grade gasoline suitable as motor transport fuel.' (DBIRD, *ibid.*, 1992, Project No. 70)

## 2.11 THE COTTON INDUSTRY

### 2.11.1 INTRODUCTION

World cotton production for 1991/92 was projected at 91.6 million bales, well above the 87.0 million bales produced during 1990/91. Australia produced 1.6 million bales, or 1.7% of the world production, in 1991/92. Queensland produces approximately 22% of Australia's production and New South Wales accounts for the remainder of domestic production. (Miell, D., *Australian Cotton Industry General Overview*, May 1992)

As a result of continuing falling cotton prices in 1991/92 and early 1992/93, world cotton production is expected to fall in both 1993/94 and 1994/95. Prices are expected to recover in 1994/95. As a result, production is expected to rise again and is projected to reach 92.1 million bales in 1997/98, 3% less than the record world crop in 1991/92. (*Agriculture and Resources Quarterly*, December 1992, ABARE)

In Australia, water shortages rather than price reductions will limit the yield potential of the 1992-93 crop. Severe water shortages in New South Wales' cotton growing area have already reduced the area in Australia planted to cotton, estimated to be 251,000 ha, 11% less than in 1991/92. (ARC, December 1992, ABARE)

### 2.11.2 THE INDUSTRY IN QUEENSLAND

On latest available figures, planting of cotton in Queensland increased by 19%, from 65,000 hectares in 1989/90 to 77,000 hectares in 1990/91. The production of raw cotton for the year rose by 39%, from 70,000 tonnes in 1989-90 to a record 98,000 tonnes in 1990-91. This increase in yield was due mainly to favourable weather conditions experienced in all major cotton growing areas.

### 2.11.3 THE CQ COTTON INDUSTRY

The CQ Region accounts for around 25% of Queensland's cotton production. Total cotton production in Central Queensland in 1990-91 was 23,848 tonnes, grown on 20,579 hectares. The value of CQ cotton production in the same year was \$52.3 million, or 24% of the total value of Queensland's cotton production (\$215.7 million). (ABS, *Queensland Year Book*, 1993) The production of cotton in 1990/91 made up 1.34% of the total estimated value of commodities produced in Central Queensland.

In Central Queensland there are four cotton growing areas, supporting a total of 84 establishments.

Emerald is the Region's largest cotton growing area, producing approximately 115,000 bales annually on around 15,000 hectares. The water needs of Emerald's cotton growers are serviced by the Fairbairn Dam, which was completed in 1968. Emerald is also the site for Central Queensland's two cotton gins.

The production of cotton in the Emerald District was up on the previous year, with some areas recording record yields. In the overall Fitzroy Statistical Division, despite a decrease of 12% in the area of cotton planted, there was an increase of 23% or 24,000 tonnes in production. (ABS, *Queensland Year Book*, 1993).

This area has not been drought affected to the extent of other Australian cotton regions because of the water supplied from the Fairbairn Dam. Current water stocks are such that the area of irrigated cotton has increased only slightly over the past few years and there is still room for expansion with the establishment of new weirs in Queensland. (Queensland Cotton Corporation)

The Theodore District, Central Queensland's other major cotton growing area, draws its irrigation water from a series of weirs along the Dawson River. Cotton is grown on approximately 6,000 hectares, with production in excess of 36,000 bales.

The Biloela Area, as with other cotton growing areas in Central Queensland, has grown cotton since the early part of this century. Areas planted to cotton in Biloela amount to around 2,000 hectares. (Gordon, S., Fitzroy Catchment Symposium, 1992)

Mackay is a comparatively minor cotton producer, supporting one grower on 500 hectares. (ABS, Crops and Pastures (7321.3), 1990-91)

It is forecast that world cotton production will fall in 1992-93, mainly because of declining prices. Turnbull (*Agriculture and Resources Quarterly*, December 1992) forecasts a 7% decline to 88 million bales, whereas Miell (May 1992) predicts a 20% decline to 70 million bales based on five year average yields. Combining these forecasts suggests that actual world production can be expected to be down by 10-15%.

## 2.12 THE DAIRYING INDUSTRY

Between 1986-87 and 1990-91, milk production in Queensland increased in value from \$159.6 million to \$216.9 million, an increase of \$57.3 million, or 35.9%. (ABS, 1992)

Data for Central Queensland is available for 1990-91 only, with a total value of production of 13.8 million; that is, 6.4% of the State's production. (ABS, 1992)

A traditional industry in the Gladstone, Rockhampton and Mackay near hinterlands, the dairying industry is presently experiencing a resurgence, with Port Curtis Dairies (PCD) planning expansion of production to supply new export niche markets.

The company is presently exporting Casein - a derivative of curd dried into powder and used as a gloss in paint and paper manufacture - to Korea and Japan. Production in 1991-92 was estimated at 240 tonnes, which fetched a price of \$7,500 per tonne. The company plans to build up its exports to 400 tonnes per year. (PCD Management, February 1993)

The viability of establishing a milking herd in the Fairbairn Dam Irrigation Area near Emerald has been recently investigated. This proposed expansion is due to the fact that PCD was unable to fill quotas for manufactured milk products in international markets. DBIRD was involved in the feasibility study, which concluded that dairying had a higher gross margin per hectare than cotton growing. (*Morning Bulletin*, 11 November 1992)

Attention is also being directed towards the Callide Dawson Valley for the same purpose.

## 2.13 THE HORTICULTURE INDUSTRY

The horticulture industry in Central Queensland is estimated at \$35 million from a growing area extending from Miriam Vale, south of Gladstone, to Carmila, south of Mackay, and west through the Central Highlands and the Central West.

Table 2.13.1 lists the estimated values of the main horticultural crops grown in Central Queensland and the respective areas under cultivation.

Pineapples grown in the Capricorn Coast Area in Livingstone Shire is the dominant crop. A niche market for fresh pineapples has been developed in New Zealand by a local consortium of growers.

Mangoes, papaws and citrus growers have also captured small overseas niche markets.

**TABLE 2.13.1: HORTICULTURAL CROPS IN CENTRAL QUEENSLAND 1991/92**

Tree Crops	Estimated Area (ha)	Estimated Value (\$M)
Pineapples	1000	8.00
Mangoes	300	3.00
Papaws	150	2.20
Grapes	100	1.00
Citrus	300	2.00
Lychees	50	0.60
Custard Apples	40	0.40
Avocadoes	50	0.40
Bananas	30	0.30
Strawberries	10	0.10
Macadamias	60	0.60
Stonefruit	20	0.20
Miscellaneous tree fruits	50	0.50
	2160	19.60

**Smallcrops**

Watermelons	300	3.00
Capsicums	40	1.00
Cucumbers	50	1.00
Pumpkins	200	0.80
Zucchini	40	0.80
Tomatoes	30	0.50
Rockmelons	40	0.50
Lettuce	20	0.30
Potatoes	40	0.50
Sweet Potatoes	25	0.80
Onions	20	0.30
Miscellaneous	30	0.60
	835	10.20

Ornamentals, Nursery, Turf		6.00
----------------------------	--	------

Source: QDPI, Rockhampton

## 2.14 THE TIMBER INDUSTRY

This is not a very well-developed industry in Central Queensland, although cutting native timber sleepers for Queensland Railways has in the past provided additional income for primary producers across the Region. Timber sleepers are no longer in demand, having been replaced by concrete ones.

The Queensland Forest Service (QFS), a Unit within QDPI, is charged with the responsibility to manage Queensland's State Forests in a manner that will ensure a continuing and increasing supply of timber to meet the State's expanding needs. As with other Units within QDPI, the Queensland Forest Service is regionalised and has a series of programs to follow within a corporate structure.

The Rockhampton District roughly represents the CQ Region that is the responsibility of QFS.

In 1991, the Rockhampton District had the following number of hectares under plantation for the various timber types: hoop pine (9); other native conifers (1); total native conifers (10); slash pine (761); caribbean pine (5,565); other exotic conifers (77); total exotic conifers (6,413).

Plantations of caribbean and slash pine at Byfield near Yeppoon and at Cathu, north of Mackay, will offer opportunities for the development of softwood processing ventures from 1995 onwards. (QFS, 1992)

As at 1 July 1992, Rockhampton District had 740,696 hectares of State Forest Areas and 136,704 hectares of Timber Reserve Areas.

Between 1990-91 and 1991-92, milling timber removals from Crown Native Forests fell from 45,860 to 36,334 cubic metres, while those from private native forests increased from 22,671 to 26,083 cubic metres.

Milling timber removed from Crown plantation timbers fell from 15,492 to 8,644 cubic metres. (QFS, Personal Communication, June 1992)

Along with the commercial stands of non-indigenous pine in the Byfield Area in Livingstone Shire, there are native hoop pine plantations at Kalpower and Bulburin State Forests near Monto which are currently supplying Stickmakers (which recently relocated from Albury-Wodonga to Gladstone) with suitable timber for the manufacture of ice cream sticks and chopsticks, mainly for the export market.

DBIRD assisted Stickmakers in setting up its Gladstone operation.

The new plant, using state-of-the-art technology, will produce 1.5 billion ice cream sticks and 600 million chopsticks per annum and, when in full production, will employ about 90 people. (DBIRD, *ibid.*, 1992, Project No. 10)



## 2.15 INDUSTRIAL INFRASTRUCTURE

### 2.15.1 INTRODUCTION

The extent, quality and distribution of industrial infrastructure is a permissive factor that contributes to economic growth and development. The impressive range of infrastructural development projects recently completed or currently under construction to support the rapid expansion of the coal industry in Central Queensland was discussed in Sub-Section 2.4.4 (iv).

Infrastructure in place is a resource that supports and facilitates natural resource development. Given the context of this Study, only industrial infrastructure will be discussed. This includes transport, electricity, water, communications and natural gas infrastructure, all of which have commercial and residential uses as well as industrial use. This is what is referred to as *basic* or *essential* development infrastructure.

Service industry infrastructure, including educational, tourism and retailing infrastructure, also have a permissive and supportive role in regional economic development, as does social infrastructure such as hospitals, schools, libraries, museums, cinemas and theatres, all of which are necessary to provide a certain acceptable level of social amenity.

The amalgamation of the former Departments of Main Roads, Harbours and Marine, Transport and Queensland Rail into a single portfolio makes it easier to develop and provide a fully integrated and more efficient transport system, and the regionalisation of government service delivery ensures that attention will be directed to areas where the greatest economic benefit can be gained by new transport infrastructure provision or the upgrading of existing facilities.

### 2.15.2 THE ROAD NETWORK

The main arterial link is provided by the coast-aligned, north-south Bruce Highway connecting Central Queensland to Southern Queensland and North Queensland. It passes near to Gladstone City and through the Cities of Rockhampton and Mackay.

The link to the West is provided by the Capricorn Highway which joins Rockhampton to the Central Highlands and the Central West.

The Dawson Highway, servicing the southeast and southwest portions of the Bowen Basin, links Gladstone to Moura and Rolleston and joins the Capricorn Highway at Emerald.

The Burnett Highway provides an inland route from Brisbane, passing through Ipswich, Monto, Biloela, Callide and Mount Morgan, and links up with the Bruce Highway at Rockhampton.

The Peak Downs Highway traverses the northern and central Bowen Basin, linking Mackay to the Moranbah and Peak Downs mining areas. It joins the Gregory Development Road at Clermont.

The Gregory Development Road joins the Hughenden Highway at Charters Towers west of Townsville and the Capricorn Highway at Emerald. It also connects with the Fitzroy Development Road near Nebo.

The Fitzroy Development Road cuts across the Central Bowen Basin, providing a north/south connection between the Gregory Development Road and the Capricorn Highway, which it joins at Dingo.

The western-aligned Landsborough Highway links the Warrego Highway in Southwest Queensland to the Central West, passing through the western townships of Tambo and Blackall to join the Capricorn Highway at Barcaldine.

In terms of access to and egress from the entire Bowen Basin, with its abundant reserves of coal, oil shale and methane gas, and servicing the beef, grain and wool industries, this is an excellent road network and was rated as such by all major operators consulted in the course of this Study.

Whilst some dissatisfaction was expressed in relation to the adequacy and standard of particular local roads, the disquiet in all instances was related to some local road or the absence of a road link where one was perceived to be necessary. These specific concerns will be discussed in Sub-Sections 4 and 7 and are documented in detail in the Background Reports to this Study.

*What is important to stress here is that the present road network, designed to facilitate the development of the CQ Region, which spans 564,539 sq km, is of a very high standard and is perceived as such.*

What is interesting from a regional economic development perspective is that there is plenty of scope for better and more efficient utilisation of this network.

For example, Barcaldine, located at the intersection of the Capricorn and Landsborough Highways, and situated on the rail line linking Rockhampton and Winton, could advantageously develop a freight storage/interchange facility.

Emerald, situated on the Capricorn Highway and at the junction of the Dawson Highway and the Gregory Development Road, and linked by rail to Winton and an electrified line to Rockhampton and then south to Gladstone and Brisbane, is already developing quickly as a regional service centre. It is an ideal location for a packaging, storage and freight forwarding facility.

Mackay, likewise, occupies a strategic position for the development of a packaging, storage and freight forwarding facility.

Rockhampton, though, has the best opportunity of becoming a major transportation hub and base for a major packaging storage and freight forwarding facility, due to its location at the junction of the Bruce, Capricorn and Burnett Highways, as well as the junction of the north-south and western rail links.

### 2.15.3 THE RAIL NETWORK

The Brisbane to Cairns and Rockhampton to Winton lines which are electrified north as far as Rockhampton and West to Emerald, form the basis of the CQ rail network.

The mines located in the northern and upper-central Bowen Basin, including Oaky Creek, German Creek, Norwich Park, Saraji, Blair Athol, Peak Downs, Goonyella and Riverside, are linked by electrified line to bulk loading terminals at Dalrymple Bay and Hay Point near Mackay.

The central and lower-central Bowen Basin mines, including Gregory, Gordonstone, Yarrabee, Jellinbah, Curragh, Blackwater, South Blackwater and Cook, are serviced by the electrified line to the bulk loading facilities at Gladstone.

The Moura, Callide and Boundary Hill mines in the southern Bowen Basin are also linked by rail to Gladstone. (See Figure 2.15.1)

Spur lines are constructed to new mine sites when commitment to proceed with their development is made.

The Bowen Basin is well serviced by rail, with most of the branch lines having been constructed for development purposes.

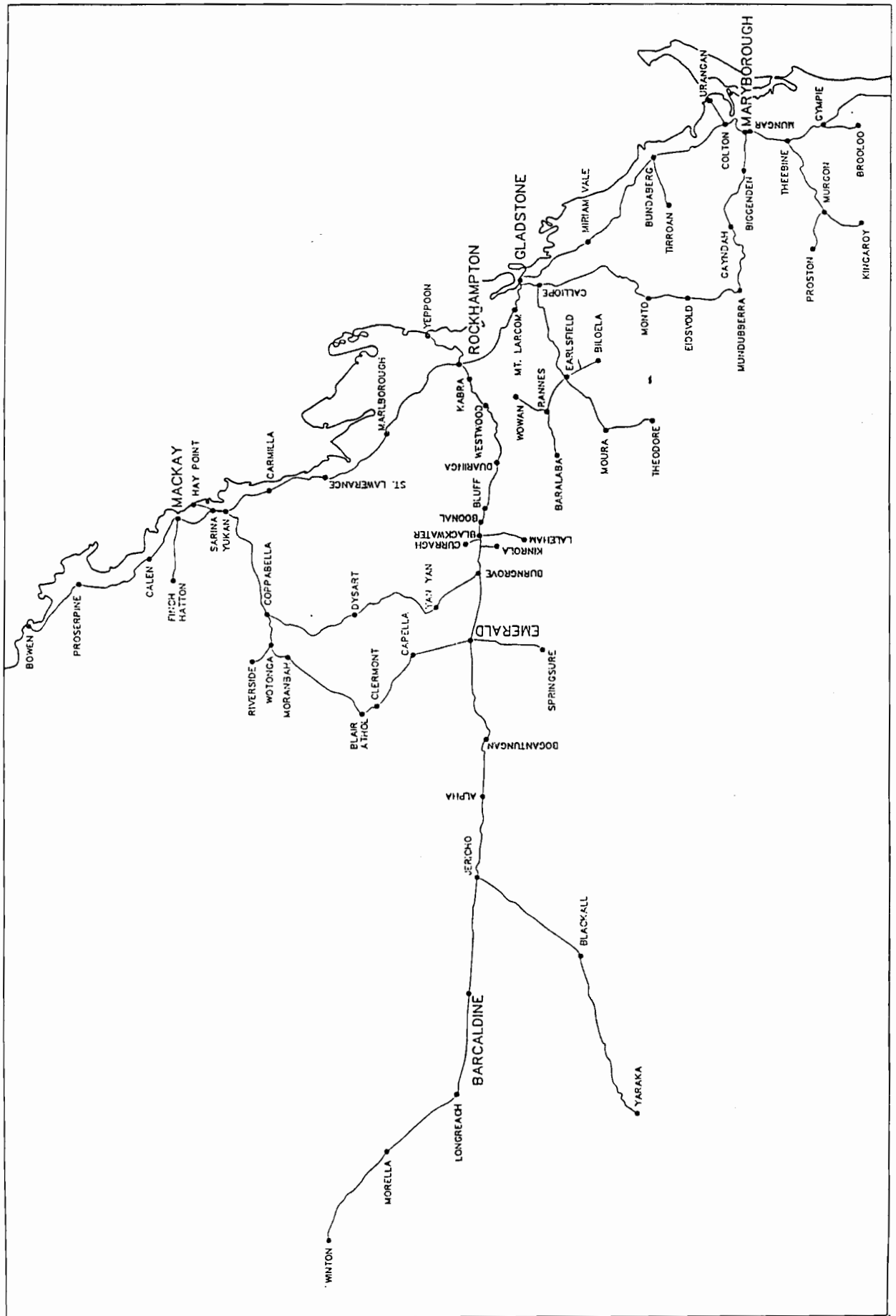
This Study has found that there is a strong conviction that rail electrification should be extended from Rockhampton to Mackay. This would advantage Mackay in particular and would assist in developing a more cohesive Region.

### 2.15.4 PORT AND RELATED INFRASTRUCTURE

Central Queensland's port and bulk-loading terminal infrastructure has been continuously developed and upgraded to handle an increasing volume of coal exports from the Bowen Basin.

The bulk-loading terminals at Hay Point and Dalrymple Point near Mackay handle the export coal throughput from the rail-linked high production segments of the Bowen Basin, and the Port of Gladstone services the lower-central and southern

FIGURE 2.15.1: RAILWAY MAP OF CENTRAL QUEENSLAND



segments. The Dalrymple Bay Coal Export Terminal Stage 2 Extension has an estimated cost of \$100 million. (DBIRD, *ibid.*, 1992, Project No. 57)

The Gladstone Port Authority's Strategic Plan, released in mid-1992, requires \$358 million expenditure over the next ten years to provide the necessary commercial wharf, reclamation and dredging infrastructure to meet anticipated demand based on the best available trade projections.

Apart from its bulk cargoes of coal, bauxite, aluminium and magnesite, Gladstone handles sulphuric acid, caustic soda, fuel oil and a range of general cargo.

The Port of Gladstone, as at June 1992, had eleven wharves and a cargo throughput of 31.8 million tonnes, with coal and aluminium dominating the export throughput. Coal alone accounted for 18 million of the 31.8 million tonnes throughput. Grain, totalling 530,022 tonnes, was the sole survivor of the agricultural trade. (Gladstone Port Authority, *Strategic Plan* (Draft) June 1992)

Port Alma, managed by Rockhampton City Council's Rockhampton Port Authority, is a specialist port handling bulk salt cargo exports and hazardous cargo imports, including explosives, is equipped to handle containerised and palletised cargo and refrigerated cargo, and can handle other bulk cargoes.

Mackay's port, managed by the Mackay Port Authority, recorded export throughput in 1991-92 of raw sugar (663,000 tonnes), grain (155,000 tonnes) and molasses (31,000), as well as other general cargo.

Imports included fuel (\$305,000 tonnes), fertiliser (91,000 tonnes), an iron concentrate (45,000 tonnes). Gross tonnage handled in 1991-92 was comprised of exports (906,500 tonnes) and imports (459,000 tonnes).

The Mackay Port Authority, in consultation with present and potential future clientele, is presently laying plans for the future development of the Port, including the upgrading of present infrastructure and the installation of new infrastructure if merited by increased cargo volumes.

The Port of Gladstone in particular, due to its natural deep water access and consequent low pilotage and dredging costs, as well as the heavy industrial concentration in the Gladstone Area, is set for massive expansion, as evidenced by the recently approved 50 year draft plan released by the Gladstone Harbour Authority in mid-1992.

With the construction of a container terminal in the mid-1990s, the Port of Gladstone will handle increasing volumes of general cargo, including some diverted cargo from the Port of Brisbane.

It is ideally situated relative to the Northeast and Southeast Asian markets for which Central Queensland, provided an immediate concerted Agri-food production

and export strategy is developed and implemented, can become the 'Clean and Green' food larder.

Port Clinton awaits development. Should an industrial enterprise zone specialising in the downline processing of natural fibres (wool and cotton) and hides and skins (fellmongering and tanning) on a joint venturing basis with emerging major trading partners (South Korea, Taiwan and the Peoples Republic of China) be located in the Port Clinton Area, the sustainable economic development of the CQ Region would be assured.

*Whilst this may be seen to be in the 'visionary' category, it may well prove to be a strategically astute planning direction to take in the belief that, although big, this scale of development is within the realms of realism and, if there is a serious commitment to making it happen, it will happen.*

#### 2.15.5 AIRPORT AND ASSOCIATED INFRASTRUCTURE

Despite sporadic lobbying by tourism industry operators, Central Queensland does not have an international airport. The Commonwealth Government, being responsible for the provision of immigration and quarantine facilities at ports of entry to Australia, was not disposed to approve a fourth international airport in Queensland, which was considered to be adequately serviced by the existing international airports at Brisbane, Townsville and Cairns.

Whilst the Commonwealth was at no stage convinced that either an 'International Gateway Airport' or an 'International Charter Standard Airport' could be justified on economic grounds, in 1987 it was eager to draw the City of Rockhampton into the Aerodrome Local Ownership Plan (ALOP), viewing terminal upgrading as being more important than runway extension, which was deemed to be adequate by the two main domestic trunk route operations, Australian Airlines and Ansett. (Kidd, M., 1987, p. 86)

As a result of a successful UCQ submission to the then Federal Minister for Transport, the Hon. Peter Morris MLA, and Rockhampton City Council's realisation that a one-off opportunity for gaining a substantial terminal upgrading and taking over the management of its operations had arisen, federal funding of \$10.7 million was obtained under ALOP for the construction of a brand new terminal.

The main runway is 1,981 metres long and 45 metres wide, with 60 metre long sealed blast areas at each threshold. The runway strip is 2,103 metres long and 150 metres wide.

The runway is capable of unlimited operation by DC9-30 aircraft, but the Department of Transport (Federal) applies concessions which restrict operations of

the heavier B737 and B727-200 aircraft by compliance with three-monthly inspections of pavements to detect any signs of distress. (Gutteridge, Haskins and Davies Pty Ltd, 1985, p. 2)

To safely accommodate B727 and B767 aircraft, or possible BAE146 and A320 aircraft in the future, the main runway would have to be extended to 2,275 metres.

Present aircraft operations include the use of Boeing 727-200, Boeing 737 and Douglas DC9-30 aircraft, seating 158, 110 and 100 passengers respectively. Regional commuter services use Fokker F27, Twin Otters and Islanders, seating 14, 22 and ten respectively.

The facilities at Rockhampton Airport can presently safely accommodate international charter aircraft of the DC9-30 variety and the main runway could be upgraded to satisfy the B737 and B727-200 class, both for passenger and air cargo purposes.

Due to the fact that the airport is flood prone, consideration should be directed towards the construction of a new airport that would meet International Charter Standards and be flood-free.

With rationalisation and deregulation, service levels in and out of Rockhampton have been reduced, but are considered adequate on the Brisbane/Rockhampton route. However, the loss of the main trunk route link from Cairns via Townsville has considerably disadvantaged Rockhampton.

Gladstone and Mackay each have airports capable of handling steady-state demand and have regular smaller aircraft flights south to Brisbane and north to Rockhampton, Townsville and Cairns.

Most inland centres have airstrips. Longreach Shire has recently taken over the management and running of its airport under the ALOP. Longreach has scheduled flights to and from Brisbane.

Proserpine's airport is scheduled for a major upgrade to support the rapid tourism expansion in the Whitsundays.

Hamilton Island has its own airport serviced by Ansett, as has Great Keppel Island, which is serviced from Rockhampton by Australian Airlines.

#### 2.15.6 TRANSPORT INFRASTRUCTURE - GENERAL

Whilst the CQ Region has a good basic transport network, particularly suited to facilitating commodity flows from the inland, in particular the Bowen Basin, to the coast, there are several opportunities for achieving more efficient utilisation of this infrastructure.

Like some other resource areas discussed in this Section, issues relating to the integration and effective management of the network have not attained the same importance as technical and engineering concerns.

*Transport is a major industry in this Region. It may well be that there is more scope for gaining a competitive edge in improving the entire approach to the shipment of commodities and products than there is, say, in improving productivity in the workplace.*

Here we do not have to be innovative, as the ingredients of an efficient, integrated transport system and the closely related Total Quality Management (TQM) approach to packaging, storing and forwarding goods are already in use in the EC and elsewhere. What is involved is technological catch up and dissemination of the use of computer control systems to improve cargo flows.

This requires the design and location of transport hubs that handle a whole range of transport-related activities and engage the best available technology and expertise.

#### 2.15.7 ELECTRICITY SUPPLY

Central Queensland has two operating coal-fired thermal power stations, the Gladstone Power Station and Biloela Callide 'B' Power Station, and the first generating unit of the modern Stanwell Power Station, 28 km southwest of Rockhampton, currently under construction, is scheduled to come on-line shortly.

The Gladstone Power Station is currently being refurbished at a total cost of \$42 million to make it 'more cost efficient and competitive with newer stations and to extend its operating life'. (DBIRD, *ibid*, 1992, Project No. 19)

The new Stanwell coal-fired thermal Power Station will have its first generating unit commissioned in 1993, its second in 1994, its third in 1995 and its fourth and final in 1996. The estimated cost of this project is \$1,650 million. (DBIRD, *ibid*., 1992, Project No. 23)

The Queensland electricity supply industry comes under the overall direction of the QEC.

'It supplies electricity to some 1.25 million customers, of whom the majority are households (1.07 million) and commercial/industrial premises (0.17 million).'

'Average electricity prices in Queensland have fallen by 24% in real terms since 1985 with prices at or below half the movement in the Consumer Price Index since 1986. International comparisons show that Australia now has the third-lowest electricity prices among



OECD countries, and Queensland prices are, on average, the lowest of all the Mainland States.' (QEC Discussion Paper on the Future Structure of the Queensland Electricity Industry [Draft], December 1992)

The 'mothballing' of the Tully Millstream hydroelectric project has raised concern in some circles, particularly in relation to the continued dependence on coal-fired electricity generation in the light of the Greenhouse Effect threat.

This project, at an estimated cost of \$700 million, was expected to be completed by 1998, but it is presently on hold. (DBIRD, *ibid.*, 1992, Project No. 69)

QEC sources are confident that, despite the comparatively long planning and construction periods required to provide new generating capacity, supply can keep well ahead of any foreseeable increase in demand.

However, electricity supply plans for the State beyond the year 2000, if they exist, are not well documented.

There are some projections that assist in putting a dimension on some of the relevant planning parameters. These include:

- . The power station developments recently and currently being undertaken in Queensland are derived from decisions made during the mid-1970s. This was a period when the State was growing at rates far higher than at present (and indeed higher than projected rates for the next twenty years). (Department of Resources and Energy, 1986, *Energy 2000: A National Energy Policy Review*, Canberra, p. 49.)
- . In the mid-1980s, the Department of Resources and Energy projected that aluminium smelters would constitute the main stimulus to the development of electricity generation plants in Queensland. (Department of Resources and Energy, 1984, *Forecast of Energy Demand and Supply Australia 1984-85 to 1993-94*, AGPS, Canberra, p. 33)
- . The most recent projections from ABARE indicate that electricity usage in Queensland is projected to increase by 2.6% per annum (on average) between 1991 and 2005. Similarly, over the same period, energy consumption is forecast to increase at 2.4% per annum. (ABARE, 1991, p. 15)
- . After the year 2000, it is projected that electricity demand will be met by the introduction of more efficient gas turbines in the manufacturing sector. This, combined with the introduction of more efficient power stations, would ultimately aid the 2.6% growth rate. (ABARE, 1991, p. 15)

- . In Queensland, it is foreseen that any additional capacity requirements will be met by the introduction and increase in efficiency in black coal-fired power stations. (ABARE, 1991, p. 16)
- . With this in mind, over the period to 2005, the consumption of black coal in Queensland is forecast to increase on an average basis of 2.5% per annum. (ABARE, 1991, p. 24)
- . The highest growth rate for electricity demand is seen to be in the commercial sector (3.8% per year). (ABARE, 1991, *Projections of Energy Demand and Supply Australia 1990-91 to 2004-05*, AGPS, Canberra, pp. 24-25)

#### 2.15.8 WATER SUPPLY/STORAGE INFRASTRUCTURE

Local concern has been expressed concerning inadequate water for irrigation purposes as a key limiting factor on the expansion of the cotton and fruitgrowing industries and the establishment of a dairying industry near Emerald, the expansion of horticultural activities in the Fitzroy Basin and the expansion of grain and seed growing in the Callide Valley.

QDPI's Water Resources Commission (WRC) has developed a State-wide strategic plan for water production that documents visions and values, goals, strategies and expected outcomes, but, although predicated on the basis of supplying water on a commercial basis, the draft plan at least has not been vested with much economic content.

The administration of rural water supplies in Queensland was stable from the turn of the century to 1987 when the development of the Water Resources Act commenced. The Act was legislated in 1989.

The prevailing philosophy prior to this was that water resource development was essentially a good thing and that heavy subsidisation was necessary to ensure the economic development of the State.

Under the Water Resources Act 1989, the WRC is a business Unit within the QDPI charged with responsibility under the Act to:

- (i) control private works on flood plains that could impact on the natural water supply available to other landowners;
- (ii) develop a flexible tariff system for allocating water to various uses; and

- (iii) permit transfer and sale of water allocations between clients.  
(Cox, R., November 1991 [unpublished])

The Fitzroy Catchment Symposium, held at the UCQ in mid-November 1992, provided sound evidence of an emerging total government approach to Integrated Catchment Management and multipurpose planning and management of water resources. The demands on water resources are immense. Apart from urban residential, industrial and commercial demand, all of which are increasing in the main coastal centres and several of the rural centres, the demands of the mining, electricity supply and agricultural industries must also be met.

In addition, there are the tourist and recreational demands on water resources.

A spate of studies has been recently carried out in Central Queensland that have addressed a range of issues from water catchment supply and aquaculture needs to flood mitigation and control.

The Pioneer Valley Appraisal Study, designed to help meet the expanding needs of rural and manufacturing industries, as well as urban growth in the Mackay Area, was released in December 1991. (WRC, December 1991)

The Fitzroy Region Overview Study carried out by the WRC has just been completed. It updates and canvasses options not raised at the Water Research Foundation of Australia (WRFA) Symposium held in Rockhampton in October 1980. (WRFA, *Symposium Papers*, October 1980)

The Nogoa Mackenzie River Study, which canvassed the agricultural potential of these river systems' catchments, was released in June 1989. (WRC, June 1989)

A Report on the Water Resources of the Isaac and Mackenzie Rivers was completed by WRC in 1988 and was designated for in-house use only. (WRC, October 1988)

The Rockhampton Flood Management Study was completed in November 1992. (WRC, November 1992) This was a mammoth effort involving input from all levels of government.

There is no doubt that Central Queensland's water needs (and excesses) have been the focus of government attention in recent years, and that the regionalisation of State Governments will assist in addressing water supply and quality problems, perceived or real.

Perceptions of water supply adequacy from all five sub-regions were canvassed in the course of carrying out this Study. The main findings are documented in Sections 5 and 6 of this Report, and are reported in detail in the relevant Background Reports to the Study.

Neither the public nor many key players across the CQ Region are adequately informed about water supply management. This goes for several LGAs and some Regional Development Organisations also.

There is a need for better dissemination of information on the critical issues of water supply/storage planning and management. This is discussed in more detail in Sub-Section 7.

## 2.15.9 NATURAL GAS INFRASTRUCTURE

The State Gas Pipeline is a \$134 million investment in infrastructure to help the economic development of Central Queensland by transporting a clean, economical, easily controlled and environmentally friendly source of energy for industrial, commercial and domestic use.

The natural gas pipeline, stretching 530 km from Wallumbilla near Roma to Gladstone, cost \$100 million. It draws on the natural gas reserves of the Surat Basin and Central Queensland's Bowen Basin and Dennison Trough.

The largest reserves of natural gas are located in the Cooper Basin in the southwest corner of the State, which can be connected to the east coast network, north to Mt Isa and to the interstate network at Moomba in South Australia.

Over 150,000 petajoules of methane gas reserves are believed to be recoverable from the coal beds of Central Queensland's Bowen Basin.

Natural gas will reduce Queensland's dependence on imported oil. In Gladstone, Queensland Alumina and ICI Ltd are major natural gas users.

Commonwealth Industrial Gases Ltd have plans for establishing an Air Separation Plant at Yarwun Industrial Estate at an estimated cost of \$40 million. The plant will have the capacity to produce up to 140,000 tonnes per annum of liquid oxygen and liquid nitrogen, which could be made available through pipeline to users. (DBIRD, *ibid.*, 1992, Project No. 27)

The State Gas Pipeline promotional material makes the confident assertion:

‘The State Gas Pipeline project will fuel the further development of Gladstone and ensure its position as one of the State's key industrial centres.’

In relation to the Gladstone to Rockhampton pipeline extension announced in February 1990, at an estimated cost of \$34 million, the promotion material states:

‘The Gladstone to Rockhampton extension brings the benefits of an inexpensive, clean and efficient energy source to Rockhampton domestic and industrial consumers’; and

‘Savings in import replacement costs for existing industries, and reduced energy costs for new and developing projects, provide the impetus for further expansion in the Rockhampton Region and enhanced prosperity and employment opportunities for the people of the area’.

Approval has been given for an extension of the pipeline north to Canoona at a cost of \$9 million to service the development and downstream processing of the area’s rich magnesite reserves.

The present Study found strong support for extending the natural gas pipeline north to Mackay. This would permit methane gas recovered from the Bowen Basin to be distributed south, should the need arise.

The availability of natural gas is most certainly a boon to Central Queensland; the commercial exploitation of the Bowen Basin’s massive methane reserves will be a further catalyst for economic development.

A separate CQ natural gas related project is the Blackall Gas Turbine Power Station with a development cost of \$45 million. A contract between QEC, Capricornia Electricity Board and the developer, Energy Equity Corporation Ltd, provides for the supply of electricity into the grid at Barcaldine in 1993. The project involves the construction of a 150 km pipeline from the Gilmore Gasfield south-west to Blackall and a 107 km 132 kV transmission line to Barcaldine. This will enhance the standard of electricity supply to the Central West. (DBIRD, *ibid.*, 1992, Project No. 58)

#### 2.15.10 THE COMMUNICATIONS NETWORK

Telecom’s Central Queensland District covers an area of more than 2,000 sq km and now encompasses the Central Western Shires of Jericho, Blackall, Barcaldine, Ilfracombe and Longreach, which were previously part of the Roma District.

The Mackay District is separate from the Rockhampton District, but services the same objectives of providing a modern, efficient, reliable service with consumer satisfaction rated as the prime performance criterion.

Telecom services over 70,000 customers. The District’s headquarters are in Rockhampton.

Telecom provides a top class communication network across the CQ Region.

The organisation's corporate objectives include:

- . ensuring customer satisfaction;
- . encouraging business development; and
- . paying attention to staff satisfaction and development.

Telecom's Rural and Remote Area Program, completed in 1991, provides greater access for sparsely settled areas to modern automatic telecommunication services. To reach remote areas, the system relies heavily on the Digital Radio Concentrator System (DRCS) - a technology designed by Telecom.

A major thrust in network modernisation in Central Queensland has been the installation of optic fibre cable to contribute towards the National Optic Fibre Link.

The cost of completing the optic fibre link from Rockhampton to Miriam Vale was \$5 million; that from Rockhampton to Mackay over \$2 million.

Telecom provides and services a high-quality communications network in Central Queensland.

#### 2.15.11 INDUSTRIAL/COMMERCIAL LAND AVAILABILITY

Good planning demands that land be set aside well in advance for designated future uses. Of particular importance in the present context is industrial land and, to a lesser extent, commercial land.

DBIRD inherited the task of managing existing industrial estates and was assigned the responsibility to instigate the necessary measures to ensure that adequate industrial land is available in the desired locations to

‘encourage and accelerate the development of manufacturing and industrial processing operations that will significantly contribute to the State's economic development’. (DBIRD Brochure, Building Stronger Regions in Queensland [undated])

There is little doubt that the availability of suitable land at a reasonable price can be a critical factor in a manufacturer's choice of industrial location.

In ascertaining what is ‘suitable’, it is the needs of the user that are paramount. Some may want serviced land close to a rail or port facility and will be prepared to pay a premium for it. Others may require large storage aprons or warehouse sites where proximity to transport terminals is not critical. There is a whole mix of industrial land types that should be made available at different rates and locations if new manufacturing operations are to be encouraged.

DBIRD's Industrial Land Scheme provides inducements for firms to locate in Queensland, but does not differentiate between different regions or areas within the State.

It allows LGAs a lot of flexibility in competing for firms to locate in or re-locate to their particular areas of jurisdiction.

DBIRD has indicated that it is phasing out its involvement in industrial land supply management and encouraging LGAs to take over.

Problems arise when delays occur because of re-zoning requirements. Often, LGAs do not have the resources at their disposal to take on additional responsibilities in the form of industrial land supply management.

It is necessary to keep striving for streamlining of legal and bureaucratic processes and endeavouring to provide the 'one stop shop' type of service to would-be re-locating or 'new start up' businesses.

#### 2.15.12 **OTHER INDUSTRIAL INFRASTRUCTURE**

There are two further categories of industrial infrastructure that have not yet been discussed in this Section. One relates to high value-adding operations that do not use CQ commodities as their main raw material input. Queensland Alumina, Minproc and ICI, all Gladstone-based operations, typify this category, as will Gladstone Special Steel when it becomes operational.

The other grouping is essentially service-oriented and includes the retail, tourism and education industries as well as public sector and private sector service delivery agencies.

A common feature of these two categories is that they cover the industries that provide the highest proportion of jobs.

Service industry infrastructure will be covered briefly in Section 3.

##### (1) **Queensland Alumina**

The refinery operated by Queensland Alumina at Gladstone, whose construction commenced in 1964 and which began operations in 1967, has been a catalyst for Gladstone's industrial development.

Queensland Alumina presently employs some 850 people. The plant processes approximately 8 million tonnes of red ore bauxite per annum, shipped in from Weipa on Cape York Peninsula, to yield approximately 3 million tonnes of alumina.

In 1982, Comalco's Boyne Island Smelter began producing aluminium from the alumina transported by conveyor belt from the Queensland Alumina Refinery. Annual production is in the region of 250,000 tonnes.

This two stage value-adding to an imported raw material is facilitated by the excellent port facilities and cheap electricity supply.

The Boyne Island Smelter plans to install a third potline at an estimated cost of \$820 million. A development timetable has not yet been set. The average construction workforce is estimated at 400 and peaking at 800. When the third potline is operational, the Smelter will employ a further 250 people. (DBIRD, *ibid.*, 1992, Project No. 26)

- (2) ICI Yarwun commenced construction of its two plants in 1989, one of which produces sodium cyanide, the other chlorine. Production in 1991-92 was estimated at 250,000 tonnes of cyanide (an import replacement of \$45 million) and \$10 million worth of chlorine per annum.

Construction of ICI's Ammonium Nitrate Plant, with an estimated cost of \$85 million, commenced in 1991. Production is expected to commence in 1993. (DBIRD, *ibid.*, 1992, Project No. 5)

- (3) Minproc Chemical Company Pty Ltd commenced production of sodium cyanide in Gladstone in early 1989. The plant has a production capacity of 25,000 tonnes per annum.

Minproc Engineering Pty Ltd is principal consultant for the UEE (Spanish) Ammonium Nitrate Plant adjacent to the Minproc Sodium Cyanide Plant at Yarwun Industrial Estate. The plant has an estimated construction/commissioning cost of \$45 million and production is expected to come on-line in mid-1993. (DBIRD, *ibid.*, 1992, Project No. 33)

- (4) **Gladstone Special Steel Plant**

The plant, estimated to cost \$900 million, will be located near the Yarwun Industrial Area. Due to some market uncertainties and difficulties in putting together the equity capital, this project, whose construction was planned to commence in 1992, has been delayed.



It is not clear what proportion of local inputs the plant will use, but scrap steel and burnt lime will rank amongst them.

Average employment during the construction phase is estimated at 700, peaking at 1,300 people. The operational workforce will be in the region of 600 people. (DBIRD, *ibid.*, 1992, Project No. 29)

#### 2.15.13 SERVICE INDUSTRY INFRASTRUCTURE

The tourism industry relies on climate, natural attractions and created attractions. An inventory of natural and created attractions would be best presented in map form, supplemented by a calendar of events put together through planning and collaboration between the various sub-regional promotional bodies. Created tourism infrastructure can be very expensive. For example, the Laguna Quays Resort near Mackay cost \$800 million.

Tourism, however, is a labour-intensive industry and creates greater linkage and multiplier effects than investment in extractive mineral industries where leakage of expenditure is substantial.

Education infrastructure, like retailing infrastructure, public sector service infrastructure and private sector service infrastructure, accommodates labour-intensive activities and generates income and employment during the construction phase, as is the case with any other type of infrastructure.

Similarly with social infrastructure such as schools, hospitals, public libraries, cinemas, theatres and all other categories of public and private amenities.

#### 2.15.14 CQ INFRASTRUCTURE ENDOWMENT: CONCLUDING COMMENTS

The CQ Region is well endowed with the necessary heavy industrial infrastructure to support an accelerated rate of economic growth and development.

Efficient infrastructure adds value to resources *in situ* by turning them into economic resources.

The existence of this high quality energy and transport infrastructure mix makes Central Queensland attractive as an industrial location, particularly for companies with target markets in Northeast and Southeast Asia.

## 2.16 REFERENCES

- Australian Bureau of Agriculture and Resource Economics, *Agriculture and Resources Quarterly*, Canberra, Dec. 1989 - Dec. 1992
- Australian Bureau of Agriculture and Resource Economics, *Commodity Statistical Bulletin*, Canberra, 1992
- Australian Bureau of Agriculture and Resource Economics, Outlook '92, National Agricultural and Resources Outlook Conference, Canberra, Feb.1992
- Australian Bureau of Agriculture and Resource Economics, *Projections of Energy Demand and Supply Australia 1990/91 to 2004/05*, Canberra, 1991
- Australian Bureau of Agriculture and Resource Economics, *Submission 91.5 to the Industry Commission*, Canberra, 1991
- Australian Bureau of Statistics, *Mineral Production Australia 1985/87-1990/91* Cat.No.8405.0, *Census of Mining Establishments, Queensland 1986/87- 1988/89* Cat. No.8401.3, *Sand, Gravel and Quarry Production 1986/87 - 1989/90* Cat.No. 8403.2
- Australian Bureau of Statistics, *Queensland Year Book 1991, 1992 and 1993*, Brisbane, 1990, 1991, 1992
- Australian Bureau of Statistics, *Value of Agricultural Commodities Produced*, 1986/87 Cat. No. 7501.3, *Crops and Pastures 1990/91* Cat.No. 7321.4 *Regional Value of Agricultural Commodities Produced 1990/91, Livestock and Livestock Products*, Queensland, 1990/91 Cat.No. 7221.3
- Australian Fisheries Management Authority, *Australian Fisheries*, Volume 51, No.4, Canberra, April 1992
- Australian Meat and Livestock Corporation, *Meat and Livestock Review*, Sydney, April 1992
- Australian Meat and Livestock Corporation, special request, *Production and Export Statistics*, Sydney,1992
- Australian Sugar Milling Council, *The Australian Raw Sugar Industry*, Brisbane, June 1991
- Australian Wool Corporation, *About Wool*, Melbourne, 1991
- Australian Wool Corporation, *Wool Kit*, Melbourne, 1991
- Australian Wool Corporation, *Wool News*, Melbourne, July - Sept.1992
- Battaglione, T. and Geen, G., *Outlook for the Australian fishing industry*, Outlook '92, ABARE, Canberra, 1992
- Beck, T., *Outlook for world coal trade*, Outlook '92, ABARE, Canberra, 1992
- Booth, D., *Marketing issues in the nineties - an exporter's perspective*, Outlook '92, ABARE, Canberra, 1992
- Burman, J., *Meeting the competition in Pacific Rim sugar markets*, Outlook'92, ABARE, Canberra, 1992

Camp Scott Furphy Pty Ltd, *Rockhampton Flood Management Study, Summary of Recommendations*, Nov.1992

Canegrowers, *Sugar Structed to Win, Strategic Development of the Australian Raw Sugar Industry*, Brisbane, Feb. 1992

Condon, C., *Credit ssles: the challenge for Australian wheat exports*, Outlook '92, ABARE, Canberra, 1992

Crawford, T.L., *Beef trade outlook*, Outlook'92, ABARE, Canberra,1992

Department of Business, Industry and Regional Development, *Building Stronger Regions in Queensland (undated)*

Department of Business, Industry and Regional Development, *Major Development Projects and Proposals*, Issue No. 12, Brisbane, 1992

Department of Business, Industry and Regional Development, *Pre-Feasibility into Establishment of a Beef Processing Plant at Clermont*, Mackay, May 1992

Department of Resources and Energy, *Energy 2000: A National Energy Policy Review*, Canberra, 1986

Department of Resources and Energy, *Forecast of Energy Demand and Supply Australia 1984/85 to 1993/94*, Canberra, 1984

Fisher, B., *Australian commodities overview*, Outlook '92, Australian Bureau of Agriculture and Resource Economics (ABARE), Canberra, 1992

Fry, J., *Competition from alternative sweeteners*, Outlook'92, ABARE, Canberra, 1992

Garnaut, R. *Australia and the Northeast Asian Ascendancy*, AGPS, Canberra, 1990.

Gladstone Port Authority, *Strategic Plan (draft)*, Gladstone, June 1992

Gordon, S., *Cotton Production Within the Fitzroy Basin - An overview of the Industry's Relative Impacts and Environmental Initiatives*, Fitzroy Catchment Symposium, Rockhampton, 1992

Goss, W., M.L.A, *Queensland Leading State, State Economic Development Policy*, Brisbane, April 1992

Government Statistician's Office, *Compendium of Queensland Statistics*, Brisbane,1992

Grains Council of Australia, *Grains 2000*, Canberra, September 1991

Gutteridge, Haskins and Davey Pty Ltd, *Rockhampton Airport Local Ownership Study*, Summary Report, June 1985

Industry Commission, *The Australian Sugar Industry, Report No.19*, Canberra, March 1992

Joint Coal Board, *Australian Coal Exports*, Sydney (monthly publication), August 1991 - July 1992

Jones, B., *Australia's Energy Sector in a World of Greenhouse Targets*, Outlook '92, ABARE, Canberra, 1992

Kidd, M.H., *An Evaluation of the Federal Government's Aerodrome Local Ownership Plan in relation to Rockhampton's Bid for Upgraded Airport Facilities*, (unpublished) Jan 1987

Lobegeiger and Barlow, Unpublished production survey data, 1992

Mackay District Canegrowers, Production information as requested, Mackay, Jan.1993

Mackay Sugar Cooperative Association Limited, *Annual Report 1989, 1990 and 1991*, Mackay, 1989, 1990,1991

McGowan International Pty Ltd., *Agricultural Potential of the Lands of the Nogoa-Mackenzie River Systems*, Brisbane, June 1989

Meat Research Corporation, *Research and Development Plan 1991/92 - 1995/96*, Sydney,1991

Miell, D., *An overview of the Australian grains industry*, Canberra, May 1992

Miell, D., *Australian Cotton Industry: General Overview*, Canberra, May 1992

Moore, D., *Domestic wheat market deregulation - fact or farce*, Outlook '92, ABARE, Canberra, 1992

Morris, P., *Future for wool under a free market environment*, Outlook'92, ABARE, Canberra, 1992

National Farmers Federation, *New Horizons: A Strategy for Australia's Agri-Food Industries*, August 1992

Papadopoulos, C., *Outlook for wheat*, Outlook '92, ABARE, Canberra, 1992

Queensland Electricity Commission, *Discussion Paper on the Future Structure of the Queensland Electricity Industry (draft)*, Dec. 1992

Queensland Cotton Corporation, Information as requested, Emerald, Jan.1993

Queensland Department of Mines, *Annual Report*, Brisbane, 1987/87 -1989/90

Queensland Department of Mines, *Queensland Mineral Resources*, Brisbane, 1991

Queensland Department of Resource Industries, *Queensland Government Mining Journal*, Brisbane, Feb. 1992

Queensland Department of Resource Industries, *Special Request - Quantity and Value of Production by Selected Statistical Divisions*, Brisbane,1990/91

Queensland DPI Central Library, *Gross Value of Australian Fisheries Production*, Brisbane, Jan. 1993

Queensland DPI Fisheries Services, *Queensland Production Data by Month*, Brisbane, 1992

Queensland DPI, *Rural Export Fact Sheet, Fish and Other Seafood*, Brisbane, Dec. 1991

Queensland DPI, *Rural Exports Facts Sheets*, Brisbane, Dec. 1991

Queensland DPI, *The Beef Cattle Industry in Queensland*, Brisbane, 1981

Queensland DPI, *The Queensland Economy*, Brisbane, 1992

Queensland Fish Management Authority, special request - production value in CQ, Brisbane, Nov. 1992

Queensland Forest Service, *Personal Communication*, June 1992

Queensland Metals Corporation Limited, *Quarterly Report for the period ending 31 December 1992*, Brisbane, Jan. 1993

Queensland Premier's Department, *Queensland, Australia, Opportunity Unlimited*, Brisbane, 1991

Queensland Sugar Corporation, Annual Report 1991/92, Brisbane, 1992

Queensland Sugar Corporation, Information as requested, Brisbane, Jan. 1993

Queensland Sugar Corporation, *Pricing Australian Raw Sugar*, Brisbane, August 1991

Queensland Sugar Corporation, *Sugar notes*, Brisbane, 1991

Rolfe, J., Central Queensland Journal of Regional Development, Vol.1 No.2, 1992

Shaw, I., *Outlook for coarse grains*, Outlook'92, ABARE, Canberra, 1992

Sturgiss, R., *Prospects for world raw and white sugar prices*, Outlook'92, ABARE, Canberra, 1992

Suetsugu, K., *Energy Trends and Australia's Position in Japan*, Outlook '92, ABARE, Canberra, 1992

Telecom Rockhampton District Office

The Australian, 10 July 1992

The Economist Intelligence Unit, *World Commodity Outlook 1992, Food, Foodstuffs and Beverages*, London, Dec. 1991

The Economist Intelligence Unit, *World Commodity Outlook 1992, Industrial Raw Materials*, London, Dec. 1991

*The Morning Bulletin*, 6 June 1992, 11 Nov. 1992

*The Morning Bulletin, CQ Unlimited*, Rockhampton, 1992

The Queensland Coal Board, *Black Diamonds, The Story of Coal in Queensland*, Brisbane, 1991

The Queensland Coal Board, *Queensland Coal Report*, (quarterly publication) Brisbane, Jan.- March 1991 to Jan.- March 1992

The Queensland Coal Board, *Queensland Coal*, Brisbane, 1992

The Queensland Coal Board, *The Coal Board Annual Review*, 40th and 41st Review, Brisbane, 1991 and 1992

*The Sunday Mail*, 15 March 1992

United States Department of Agriculture, *Livestock and Poultry, Situation and Outlook Report*, Washington, Feb. 1992

United States Department of Agriculture, *US Trade and Prospects, Dairy, Livestock and Poultry Products*, Washington, June 1992

University of Central Queensland, *Fitzroy Catchment Symposium Proceedings*, Rockhampton, Nov.1992

Water Research Foundation of Australia, *Water and Energy Resources of the Fitzroy River Basin*, Oct.1980

Water Resources Commission, *Fitzroy Region Overview (draft)*, Jan.1993

Water Resources Commission, *Report on Pioneer Valley Appraisal Study*, Dec.1991

Water Resources Commission, *Report on Water Resources of the Isaac and Mackenzie Rivers*, Oct.1988

### **SECTION 3**

## **REGIONAL AND SUB-REGIONAL PROFILES: THE STATE OF PLAY**

### **3.0 REGIONAL AND SUB-REGIONAL PROFILE**

#### **3.1 INTRODUCTION**

The database on which Sub-Sections 3.6 to 3.13 are based is contained in Background Report No. 1 (BR.1), compiled from ABS data and other information sources. These data are presented on a CQ Regional basis and, where the appropriate disaggregate data were available, are presented on a sub-regional basis and individually for each LGA within the relevant sub-regions.

In some instances, data were available on a Statistical Division basis only.

Only summary tables from the above-mentioned Background Report are reproduced in this Section. Where more detail is sought, reference should be made to BR.1.

#### **3.2 THE STUDY TARGET AREA**

As noted in Sub-Section 2.1, the CQ Region, as delineated for this Study, covers an area of 564,539 sq km and comprises a third of the area of the State. Details of the Study Area are provided in Sub-Section 1.7, as well as a delineation of its component five sub-regions and the LGAs that they cover.

#### **3.3 GEOGRAPHIC OUTLINE**

The CQ Region as defined is contained within latitudes 20 and 25.5 degrees South and longitudes 138 and 154 degrees East. It contains the Fitzroy Basin, the largest river basin on the east coast of Queensland, which covers an area in excess of 200,000 sq km.

#### **3.4 CLIMATE**

Due to spanning 16 degrees of longitude, and the varied topography of the Region, there is considerable climatic variation from the coast westward to the Great Dividing Range and thence out to the Northern Territory border, as well as along a north-south axis covering 5.5 degrees of latitude.

The climate is predominantly sub-tropical, with the coastal belt, particularly the north-eastern segment, experiencing heavy summer rainfall. From a mean annual rainfall of 1800 mm in the north-eastern coastal ranges, there is a steep drop to 800 mm to the immediate west of the coastal ranges and thence a steady westward



decline to levels of 400 mm to 500 mm on the western fringe of the Central Highlands, down to less than 200 mm in the far west.

Table 3.1 provides an indication of the extent of rainfall variation throughout the CQ Region. The 1990 recordings are atypical, due to the April 1990 flood causing saturation by cyclonic rain across Central Queensland.

**TABLE 3.1 RAINFALL: SELECTED LOCATIONS**

Location	1989	1990	Long Term Average
Bundaberg	1,286	700	1,145
Gladstone	1,082	983	908
Rockhampton	1,110	1,402	840
Mackay	1,899	2,541	1,694
Emerald	860	745	639
Blackall	697	741	528
Longreach	679	647	458
Winton	598	452	411
Boulia	130	161	266

**Source:** ABS, *Queensland Year Book*, 1992, p. 14.

The Region is typified by dry winters, with July rainfall for the coastal belt ranging from 25 mm in the south to 75 mm in the north-east. July rainfall to the immediate west of the coastal ranges averages 12 mm in the south and increases northward to 25 mm in the north-east. On the western portion of the Central Highlands, July rainfall of less than 12 mm makes winter drought a constant threat and water management and conservation a dominant concern.

West of the Great Dividing Range, winter rainfall becomes increasingly more sparse out to the Northern Territory border.

The CQ Region experiences great variability in rainfall, not only from year to year, but also from place to place. 'This is due to the sporadic nature of cyclones and tropical and sub-tropical depressions, as well as the variability of thunderstorm rains which frequently make up a large part of the spring and early summer totals.' (ABS, *Queensland Year Book*, 1992, p.14)

The decrease in rainfall from the coast westward and the increase from south to north on the coastal fringe is evident from Table 3.1.

In January, the mean temperatures for the Region range from 27 to 32 degrees celsius, whilst July temperatures range from 15 to 21 degrees celsius.

The highest daily average sunshine occurs in October (8-11 hours), with the Boulia-Birdsville-Windorah area in the far west recording eleven hours. The lowest daily averages occur in July (7-10 hours), with Camooweal averaging ten hours.

This contrasts with more southerly locations as evidenced by the following average winter months capital city recordings: Melbourne, 3.9; Hobart, 4.4; Adelaide, 4.6; Canberra, 5.4; Perth, 5.5; Sydney, 6.2; Brisbane, 7.2; and Darwin 10.0. (ABS, *Queensland Year Book*, 1992, p. 17.)

### 3.5 VEGETATION

The coastal belt is classified as open forest, a vegetation type that covers nearly half of Queensland. In the heavy rainfall coastal areas, there are pockets of dense wet sclerophyll forest and pockets of softwood scrub.

Most of the Central Highlands is acacia scrub country. West of the Great Dividing Range there is another belt of open forest which merges into open grassland west of Blackall; apart from scattered spreads of spinifex grass, this open grassland continues out to the Northern Territory border.

### 3.6 POPULATION TRENDS

On an ABS Statistical Division basis, Table 3.2 provides details of LGA areas and their respective populations at the 1986 and 1991 Census dates, as well as changes in population between 1986 and 1991 and population projections to the year 2006.

TABLE 3.2 - POPULATION AND POPULATION PROJECTIONS BY LOCAL GOVERNMENT AREA

Local Government Area	Area	Population 30 June 1986	Population 6-Aug 1991	Population % Change 1986-91	Population Projection 1996	Population Projection 2001	Population Projection 2006	Projected Increase 1991-2006	Projected % Change 1991-2006
	sq km								
<b>FITZROY STAT. DIVN</b>									
Banana Shire	15726	16888	14256	-15.59	17739	18319	18960	4704	33.00
Bathurst Shire	24558	2654	2565	-3.35	2360	2363	2368	-197	-7.68
Calloope Shire	5875	9720	11100	14.20	12658	14465	16537	5437	48.98
Duaringa Shire	17946	10499	10256	-2.31	11001	11472	12046	1790	17.45
Emerald Shire	10230	9462	10662	12.68	11049	12390	13829	3167	29.70
Fitzroy Shire	5761	6406	8050	25.66	9726	11872	14121	6071	75.42
Gladstone City	128	22792	24205	6.20	23759	24536	25557	1352	5.59
Jericho Shire	21717	1105	1120	1.36	974	951	932	-188	-16.79
Livingstone Shire	11150	15886	19341	21.75	19737	21922	24100	4759	24.61
Mount Morgan Shire	505	3108	3093	-0.48	3157	3156	3154	61	1.97
Peak Downs Shire	8096	3209	3957	23.31	4620	4840	5012	1055	26.66
Rockhampton City	187	56742	59418	4.72	64694	67878	69514	10096	16.99
<b>TOTAL</b>	<b>121879</b>	<b>158471</b>	<b>168023</b>	<b>6.03</b>	<b>181474</b>	<b>194164</b>	<b>206130</b>	<b>38107</b>	<b>22.68</b>
<b>CENTRAL-WEST STAT. DIVN</b>									
Aramac Shire	23232	1097	833	-24.07	1032	1019	1007	174	20.89
Barcaldine Shire	8430	1779	1813	1.91	1766	1729	1705	-108	-5.96
Barcoo Shire	61901	566	550	-2.83	437	426	411	-139	-25.27
Blackall Shire	16304	2070	2043	-1.30	2057	2014	1972	-71	-3.48
Boulia Shire	61176	583	580	-0.51	527	514	504	-76	-13.10
Diamantina Shire	94690	302	339	12.25	230	222	212	-127	-37.46
Illacombe Shire	6566	327	342	4.59	315	309	305	-37	-10.82
Isisford Shire	10528	465	445	-4.30	314	294	289	-156	-35.06
Longreach Shire	23517	3871	4368	12.84	4293	4392	4447	79	1.81
Tambo Shire	10308	704	621	-11.79	620	626	635	14	2.25
Winton Shire	53820	1986	1878	-5.44	1675	1636	1602	-276	-14.70
<b>TOTAL</b>	<b>370472</b>	<b>13750</b>	<b>13812</b>	<b>0.45</b>	<b>13266</b>	<b>13181</b>	<b>13089</b>	<b>-723</b>	<b>-5.23</b>
<b>MACKAY STAT. DIVN</b>									
Belyando Shire	30078	11362	11080	-2.48	13168	14126	15218	4138	37.35
Broadbent Shire	18307	8419	8476	0.68	10126	10627	10999	2523	29.77
Mackay City	34	22199	23044	3.81	23326	23670	23838	794	3.45
Mirani Shire	3292	4854	4626	-4.70	5052	5129	5200	574	12.41
Nebo Shire	10033	2352	2632	11.90	2474	2528	2604	-28	-1.06
Pioneer Shire	2764	36084	40616	12.56	43845	48019	52053	11437	28.16
Sarina Shire	1327	7537	8073	7.11	9378	10576	11782	3709	45.94
Whitsunday Shire (e)	2644	11581	15216	31.39	16094	19724	23564	8348	54.86
<b>TOTAL</b>	<b>68479</b>	<b>104388</b>	<b>113763</b>	<b>8.98</b>	<b>123463</b>	<b>134399</b>	<b>145258</b>	<b>31495</b>	<b>27.68</b>
Miriam Vale Shire	3709	2017	3134	55.38	2859	3150	3260	126	4.02
<b>TOTAL CENTRAL QUEENSLAND</b>	<b>564539</b>	<b>278626</b>	<b>298732</b>	<b>7.22</b>	<b>321062</b>	<b>344894</b>	<b>367737</b>	<b>69005</b>	<b>23.10</b>
<b>TOTAL QUEENSLAND</b>	<b>1727000</b>	<b>2624595</b>	<b>2978631</b>	<b>13.49</b>	<b>3284226</b>	<b>3591154</b>	<b>3889420</b>	<b>910789</b>	<b>30.58</b>

TABLE 3.2 (cont) - POPULATION AND POPULATION PROJECTIONS BY LOCAL GOVERNMENT AREA

	Area 1991	Population 30 June 1986	Population 6-Aug 1991	Population Projection 1996	Population Projection 2001	Population Projection 2006	Projected Increase 1991-2006
	sq km						
% OF CENTRAL QUEENSLAND							
FITZROY STAT. DIVN	21.59	56.88	56.25	56.52	56.30	56.05	55.22
CENTRAL-WEST STAT. DIVN	65.62	4.93	4.62	4.13	3.82	3.56	-1.05
MACKAY STAT. DIVN	12.13	37.47	38.08	38.45	38.97	39.50	45.64
Miriam Vale Shire	0.66	0.72	1.05	0.89	0.91	0.89	0.18
CENTRAL QUEENSLAND % OF QUEENSLAND							
	32.69	10.62	10.03	9.78	9.60	9.45	7.58

Source: ABS - 1991 Census of Population and Housing; Population Projections - Queensland Department of Housing and Local Government ("Medium" Population Projections Used)

Compared with an increase of 13.5% for the State between 1986 and 1991, the CQ Region recorded an increase of only 7.2%. Over this period, thirteen out of the 32 LGAs that comprise the CQ Region experienced population declines, seven of them in the Central West Statistical Division which experienced an overall population growth rate of only 0.45%.

Gladstone City, with an increase of 6.2%, experienced the highest population growth rate of the three main coastal centres, but adjacent Calliope and Miriam Vale Shires recorded growth rates of 14.2% and 55.4% respectively.

Rockhampton City had a population growth rate of only 4.7%, while adjacent Fitzroy and Livingstone Shires recorded growth rates of 25.7% and 21.8% respectively.

Similarly, Mackay City's population grew by only 3.8% over this period, while adjacent Pioneer Shire experienced an increase of 12.6%.

Between 1991 and 2006 the projected increase of population for the CQ Region is only 23%, compared with 30.6% for the State as a whole. Furthermore, some twelve LGAs are projected to experience population declines over this period, with nine of these (out of the Central West's total of eleven) located in the Central West Statistical Division, which is projected to lose 723 persons, or 5.2% of its present population of 13,812 persons.

Both the recent population trends and the projections issue a warning and raise the question: 'Is this comparatively low population growth rate, including the projected future trend, related to economic instability or decline, leading to a lack of business and job opportunities, or are there other economic and/or sociological factors at work that render the CQ Region less attractive than, say, Southeast Queensland?'

It is clear from Table 3.2 that the phenomenon is not solely due to population trends in the Central West Statistical Division despite its high proportion of LGAs experiencing population loss.

Fitzroy, the second largest Statistical Division in the CQ Region, with an area of 121,879 sq km, containing the major coastal centres of Rockhampton and Gladstone and their immediate hinterlands, and the Central Highlands west to the Great Dividing Range, with a total population of 168,023 in August 1991, that is, 56.3% of the CQ total, had a growth rate of only 6% between 1986 and 1991 - less than half the State's average. Four out of Fitzroy's twelve LGAs, all of them rural, experienced population declines.

The vast Central West Statistical Division, covering 370,472 sq km, or 65% of the area of the CQ Region, had a population of only 13,812 at the 1991 census; that

is, 4.6% of the CQ Region's population. Over the five year inter-censal period, the Central West's population increased by only 62 persons, or 0.4%. Worse still, eight of the eleven LGAs experienced population declines.

Even Mackay Statistical Division, with a population of 113,763 in August 1991, had a growth rate of only 9% over the previous five years; that is, 4.5% below the State average.

Miriam Vale Shire, which recorded a 55.4% population increase between 1986 and 1991, had in August 1991 already virtually reached the population projected for the Shire in the year 2001. It, too, is primarily a rural Shire but, significantly, is located on the coast.

It has been noted that whereas Queensland's population is projected to increase by 30.6% over the fifteen year period from 1991 to 2006, that of Central Queensland is expected to increase by only 23%. In absolute terms, this is an increase of 69,005 persons for the CQ Region, compared with the State's projected increase of 910,789 persons. For the CQ Region, this translates into a drop from the present 10% of the State's population to less than 8%, an ominous signal in terms of political significance if judged solely on a population basis.

By the year 2006, nine of the Central West LGAs, two of the Fitzroy LGAs and one of the Mackay LGAs are expected to experience population declines.

*The challenge, then, is to ensure that these negative population growth projections for the CQ Region are not realised and to arrest the population declines in the Central West and other rural LGAs.*

### 3.7 THE RURAL DECLINE PHENOMENON

There is a popular belief that rural decline, like urban decay, is a natural phenomenon that is, in a sense, inevitable. It tends to be explained by factors such as adverse changes in the Terms of Trade, loss of competitive advantage, structural inflexibility, depletion or degradation of natural resources, product obsolescence due to changes in consumer's tastes, unfair trading practices by international competitors, or cheaper labour costs in developing countries, giving them a competitive advantage.

On the other hand, lack of education and job opportunities in rural areas, combined with a perceived shortage of modern lifestyle amenities, are often identified as causes of population drift from rural areas to major urban centres and their environs.

Whilst cross-subsidisation may assist in arresting this rural decline in the case of cyclical aberrations in income levels due to erratic fluctuations in export demand,

commodity prices or exchange rates, or disruptions to world trade due to wars or natural catastrophes such as drought, it is virtually politically impossible to justify major cross-subsidisation programs on a long term or permanent basis.

Ultimately, economic efficiency arguments tend to prevail over equity considerations, and rural decline, in the true *laissez faire* tradition, is permitted to take its natural course.

However, even within a regional development policy regime underlain by the principle that the government is prepared to provide research and development assistance on a matching basis only, and where the provision of infrastructure is not viewed as a deliberate stimulant *per se*, the provision of key, 'one-off' infrastructural facilities that are beyond the resource capabilities of hard-pressed areas such as the Central West should still qualify for special consideration.

On the other hand, rural communities can be encouraged to escape from fatalistic mindsets and tackle the difficult task of finding solutions to the problem of economic decline and associated population loss. As well as being innovative and imaginative, the community has to develop a unity of purpose and a resolve to take a proactive role in the regeneration process.

*Achieving desirable change may involve developing alternative land usages, new animal husbandry or crop rotation techniques, or developing new viable small-scale industries and finding the necessary capital and expertise to operate them in order to truncate the volatile economic base of the Region.*

The Future Search Workshop technique is a particularly useful means of encouraging community self-reliance and self-direction and engaging previously unused or underutilised human resources. People tend to become more resourceful in the face of impending crises; people are valuable resources; people create prosperity and tend to follow prosperity.

On the other hand, the diagnosis of regional problems and the prescription of what is needed to arrest population loss and economic decline is only a starting point. The forces that caused the economic decline in the first place may still be operative, so it is not just a matter of turning back the clock and taking back primary commodity processing activities lost to coastal centres or overseas. Economies of scale, transport costs and specialist expertise considerations may still be relevant and may militate against what may be only 'stop gap' solutions.

Revitalising declining areas or sub-regions is a difficult and slow process. Aiming at the attainable and clocking up small 'wins' at an early stage is essential if community enthusiasm and commitment is to be maintained.

Population projections are extremely valuable for planning purposes, but the knowledge that the population of a Shire or sub-region is expected to continue to decline over medium and long term planning horizons does no good for local

business confidence or community morale. The problems may be generic, but long term generic solutions to such problems have proved to be elusive.

### 3.8 LABOUR FORCE STATUS

These data, compiled on a Statistical Division basis and covering the period August 1988 to August 1991, are summarised for the CQ Region (excluding Miriam Vale Shire) in Table 3.3.

The decline in full-time employment for the 15-19 and 20-24 year age groups is particularly noticeable, with falls of 49.4% and 22.8% respectively.

Another dominant feature exemplified in Table 3.3 is the imbalance between males and females in full-time employment. Of the 100,000 persons in full-time employment in August 1991, 78,000 were males and 23,000 were females; and, whereas male full-time employment increased by 7% over the three year period, that for females remained virtually static.

There was a noticeable increase in part-time employment for all categories except the 20-24 year age group. Females, with 25,900, dominated part-time employment, with males accounting for only 6,200 of the total.

Over the period in question, unemployment for the 15-19 year age group fell by 27.6%. This may be largely explained by staying on longer in the education system and participating in job training schemes.

The biggest percentage increase in unemployment (131.3%) was recorded for the 20-24 year age group. Reductions in unemployment were recorded for the 25-44 and 45 year and over age groups.

In terms of the unemployment rate, the 20-24 year age group jumped from 7.8% in August 1988 to 20.3% in August 1991, an increase of 160.3%. Improvements were recorded for the other three categories.

The overall unemployment rate fell from 8.5% to 7.6% over the period in question, with the improvement for males double that for females.

### 3.9 INDUSTRY DISTRIBUTION OF WORKFORCE

Table 3.4 shows the distribution of the workforce for the combined Statistical Divisions of Mackay, Fitzroy and the Central West across the various industry categories and percentage changes in that distribution between August 1988 and August 1991.



TABLE 3.3 - LABOUR FORCE STATUS - AGE AND SEX FOR COMBINED MACKAY, FITZROY AND CENTRAL WEST STATISTICAL DIVISIONS  
AUGUST 1988 - AUGUST 1991

PARTICULARS	AUG - 88 ('000)	AUG - 89 ('000)	AUG - 90 ('000)	AUG - 91 ('000)	%CHANGE AUG1988 - AUG 1991
Labour Force Status:					
EMPLOYED FULL-TIME					
Age Group (years)					
15-24	24.30	25.80	24.90	16.50	-32.10
15-19	8.10	10.20	10.40	4.10	-49.38
20-24	16.20	15.70	14.50	12.50	-22.84
25-44	51.20	61.20	61.40	58.00	13.28
45 and over	18.40	22.90	23.50	26.00	41.30
Sex					
Males	70.80	78.80	81.40	77.40	9.32
Females	23.00	31.10	28.50	23.10	0.43
Persons	93.90	109.90	109.80	100.50	7.03
EMPLOYED PART-TIME					
Age Group (years)					
15-24	6.40	6.40	6.30	8.40	31.25
15-19	4.10	4.90	3.50	6.40	56.10
20-24	2.30	1.50	2.90	2.00	-13.04
25-44	11.80	16.30	13.40	16.60	40.68
45 and over	5.40	6.20	5.50	7.20	33.33
Sex					
Males	3.70	4.20	2.40	6.20	67.57
Females	20.00	24.70	22.90	25.90	29.50
Persons	23.70	28.90	25.30	32.20	35.86

TABLE 3.3(cont) - LABOUR FORCE STATUS - AGE AND SEX FOR COMBINED MACKAY, FITZROY AND CENTRAL WEST STATISTICAL DIVISIONS  
AUGUST 1988 - AUGUST 1991

PARTICULARS	AUG - 88 ('000)	AUG - 89 ('000)	AUG - 90 ('000)	AUG - 91 ('000)	%CHANGE AUG1988 - AUG 1991
<b>EMPLOYED TOTAL</b>					
Age Group (years)					
15-24	30.80	32.20	31.20	25.00	-18.83
15-19	12.30	15.00	13.90	10.50	-14.63
20-24	18.40	17.20	17.40	14.50	-21.20
25-44	63.00	77.50	74.80	74.60	18.41
45 and over	23.90	29.20	29.00	33.20	38.91
Sex					
Males	74.60	83.00	83.70	83.70	12.20
Females	43.00	55.90	51.30	49.00	13.95
persons	117.60	138.90	135.10	132.70	12.84
<b>UNEMPLOYED</b>					
Age Group (years)					
15-24	4.50	5.10	4.70	5.80	28.89
15-19	2.90	2.30	2.90	2.10	-27.59
20-24	1.60	2.80	1.70	3.70	131.25
25-44	5.20	3.60	3.90	4.60	-11.54
45 and over	1.20	1.40	1.20	0.50	-58.33
Sex					
Males	6.30	5.30	5.20	6.10	-3.17
Females	4.60	4.70	4.50	4.90	6.52
Persons	10.90	10.10	9.80	11.00	0.92

TABLE 3.3(cont) - LABOUR FORCE STATUS - AGE AND SEX FOR COMBINED MACKAY, FITZROY AND CENTRAL WEST STATISTICAL DIVISIONS  
AUGUST 1988 - AUGUST 1991

PARTICULARS	AUG - 88 ('000)	AUG - 89 ('000)	AUG - 90 ('000)	AUG - 91 ('000)	%CHANGE AUG1988 - AUG 1991
<b>LABOUR FORCE</b>					
Age Group (years)					
15-24	35.20	37.30	35.90	30.80	-12.50
15-19	15.30	17.40	16.80	12.60	-17.65
20-24	20.00	19.90	19.10	18.20	-9.00
25-44	68.20	81.10	78.70	79.20	16.13
45 and over	25.10	30.50	30.20	33.70	34.26
Sex					
Males	80.90	88.40	89.00	89.80	11.00
Females	47.60	60.60	55.90	53.90	13.24
Persons	128.50	148.90	144.80	143.70	11.83
<b>NOT IN LABOUR FORCE</b>					
Age Group (years)					
15-24	12.40	16.50	12.90	16.60	33.87
15-19	8.30	11.60	8.90	11.20	34.94
20-24	4.10	4.90	3.90	5.40	31.71
25-44	23.70	21.60	20.50	17.60	-25.74
45 and over	31.50	32.70	40.50	35.70	13.33
Sex					
Males	17.90	22.90	22.10	21.80	21.79
Females	49.60	47.90	51.80	48.00	-3.23
Persons	67.50	70.80	73.90	69.80	3.41

TABLE 3.3(cont) - LABOUR FORCE STATUS - AGE AND SEX FOR COMBINED MACKAY, FITZROY AND CENTRAL WEST STATISTICAL DIVISIONS  
AUGUST 1988 - AUGUST 1991

PARTICULARS	AUG - 88 (%)	AUG - 89 (%)	AUG - 90 (%)	AUG - 91 (%)	%CHANGE AUG1988 - AUG 1991
UNEMPLOYMENT RATE					
Age Group					
15-24	12.70	13.60	13.00	18.90	48.82
15-19 *	19.10	13.40	17.50	16.80	-12.04
20-24 *	7.80	13.90	9.10	20.30	160.26
25-44	7.60	4.40	4.90	5.80	-23.68
45 and over *	5.00	4.50	4.00	1.60	-68.00
Sex					
Males	7.80	6.00	5.90	6.80	-12.82
Females	9.60	7.80	8.10	9.00	-6.25
Persons	8.50	6.80	6.70	7.60	-10.59
PARTICIPATION RATE					
Age Group (years)					
15-24	74.00	69.30	73.60	65.00	-12.16
15-19	64.90	60.00	65.30	53.00	-18.34
20-24	83.00	80.20	82.90	77.10	-7.11
25-44	74.20	79.00	79.30	81.80	10.24
45 and over	44.40	48.30	42.80	48.60	9.46
Sex					
Males	81.90	79.40	80.10	80.40	-1.83
Females	48.90	55.90	51.90	52.90	8.18
Persons	65.60	67.80	66.20	67.30	2.59

\* denotes that items on this line may be subject to high standard error and should be used with caution  
SOURCE: ABS Special printout based on monthly review of labour. Catalogue No. 6201.3

TABLE 3.4 - EMPLOYED PERSONS: STATUS OF WORKER, INDUSTRY AND OCCUPATION FOR COMBINED MACKAY, FITZROY AND CENTRAL WEST  
STATISTICAL DIVISIONS - AUGUST 1988 - AUGUST 1991

PARTICULARS	AUG - 88 ('000)	AUG - 89 ('000)	AUG - 90 ('000)	AUG - 91 ('000)	% QLD.TOTAL AUG1988 - AUG1991	%CHANGE AUG1988 - AUG1991
<b>STATUS OF WORKER</b>						
Wage and salary earners	94.40	115.20	113.10	105.90	9.90	12.18
Others	23.20	23.70	22.00	26.80	11.25	15.52
<b>INDUSTRY DIVISION</b>						
Agriculture, Forestry, Fishing and Hunting	12.90	12.40	15.80	14.70	18.13	13.95
Mining	7.90	9.50	9.70	9.70	44.09	22.78
Manufacturing	10.10	16.80	16.20	13.60	9.10	34.65
Electricity, Gas and Water *	2.30	2.00	2.30	2.30	16.31	0.00
Construction	9.60	8.70	7.70	7.90	7.39	-17.71
Wholesale and retail trade	22.80	25.90	27.80	26.50	8.82	16.23
Wholesale trade	4.30	5.40	5.10	6.60	8.15	53.49
Retail trade	18.60	20.40	22.70	20.00	9.11	7.53
Transport and storage	11.80	13.00	12.20	12.90	16.25	9.32
Communication *	2.20	2.40	2.20	1.90	8.56	-13.64
Finance, Property and Business Services	6.40	8.00	7.10	7.10	5.30	10.94
Public administration and defence	3.40	5.20	3.40	3.50	6.97	2.94
Community services	17.20	22.50	21.20	20.60	8.59	19.77
Recreation, personal and other services	11.10	12.60	9.50	12.00	11.04	8.11

\* denotes that items on this line may be subject to high standard error and should be used with caution

TABLE 3.4 (cont) - EMPLOYED PERSONS: STATUS OF WORKER, INDUSTRY AND OCCUPATION FOR COMBINED MACKAY, FITZROY AND CENTRAL WEST  
STATISTICAL DIVISIONS - AUGUST 1988 - AUGUST 1991

PARTICULARS	AUG - 88 ('000)	AUG - 89 ('000)	AUG - 90 ('000)	AUG - 91 ('000)	% QLD TOTAL AUG 1988 - AUG 1991	% CHANGE
<b>OCCUPATION GROUP</b>						
Managers	12.90	14.00	12.80	14.10	10.68	9.30
Professionals	8.20	11.20	8.10	8.70	6.33	6.10
Para-professionals	7.30	7.00	7.10	8.30	10.40	13.70
Tradepersons	20.60	22.20	22.90	23.50	11.58	14.08
Clerks	13.60	20.00	15.70	14.70	6.91	8.09
Salespersons and personal service workers	16.60	21.80	22.40	19.00	8.38	14.46
Plant and machine operators and drivers	16.00	18.00	14.90	18.00	16.98	12.50
Labourers and related workers	22.50	24.60	31.10	26.50	12.59	17.78
<b>TOTAL</b>	<b>117.60</b>	<b>138.90</b>	<b>135.10</b>	<b>132.70</b>	<b>10.14</b>	<b>12.84</b>

\* denotes that items on this line may be subject to high standard error and should be used with caution

Source: ABS Special printout based on monthly review of labour, Catalogue No. 6201.3

Of the 143,700 people in the labour force in August 1991, 89,800 were male and 53,900 female. Over the three year period, the labour force grew by 11.8% - the male portion by 11% and the female portion by 13.2%.

The Wholesale and Retail Trade Division employed 26.5% of Central Queensland's workforce in August 1991, an increase of 16.2% on August 1988.

Community Services (20.6%), Agriculture, Forestry, Fishing, Hunting (14.7%), Manufacturing (13.6%), Transport and Storage (12.9%) and Recreation, Personal and Other Services (12%) were the other high employment industry divisions. (See Table 3.4)

### 3.10 DEMOGRAPHIC WORKFORCE COMPARISONS BY SUB-REGION - 1986 CENSUS

Table 3.5, based on 1986 Census data, provides comparisons by Occupation, Employment by Industry, Personal Income Levels and Level of Qualifications for the five sub-regions. This table contains a massive amount of information; only salient points will be referred to in this commentary.

- It is surprising to note that, in percentage terms, the Central West (27.6%) and the Central Highlands Area (19.8%) had more 'Managers and Administrators' than the Rockhampton Area (12.6%), Gladstone Area (10.3%) and Mackay Area (14.4%).

In terms of absolute numbers, however, Mackay was dominant with 5,888, Rockhampton second with 4,922, and the Central Highlands and the Central West, with 2,245 and 1,701 respectively, were ahead of Gladstone with 1,408.

- In terms of percentage of the workforce, Gladstone and Rockhampton Areas top the 'Professionals' category, each with 8.2%, followed by Mackay Area (7.5%), Central Highlands (6.3%) and Central West (5.9%).

In absolute terms, the ranking was substantially different: Mackay Area (3,067), Rockhampton Area (3,186), Gladstone Area (1,122), Central Highlands (716) and Central West (364).

- In terms of percentage of 'Tradespersons' in the workforce, Gladstone Area was highest with 19.4%, Mackay Area was second with 17.4% and Rockhampton Area third with 16.3%. However, the Central Highlands was not far behind, with 16% - mainly associated with the coal mining industry - and the Central West had 13.4%, a fairly high proportion of which would have been shearers.

TABLE 3.5 - DEMOGRAPHIC/WORKFORCE COMPARISONS BY LOCAL GOVERNMENT AREA - 1986

OCCUPATION	Rockhampton Area Total % of Total	Gladstone Area Total % of Total	Central Highlands Area Total % of Total	Mackay Area Total % of Total	Central West Area Total % of Total
Managers & Administrators	4922	1408	2245	5888	1701
Professionals	3186	1122	716	3067	384
Para-professionals	2526	740	431	2130	272
Tradespersons	6349	2659	1818	7100	827
Clerks	5382	1592	962	4800	499
Sales & personal services	4893	1281	829	4677	455
Plant & Machine operators	3487	2129	1787	5115	431
Labourers & Related workers	7430	2367	2329	7113	1343
Inad Described & Nel	456	220	161	518	85
Total (Incl not stated)	39054	13707	11355	40913	8170
INDUSTRY					
Agric.Forestry, Fishing & Hunting	3653	777	2564	5139	2392
Mining	1570	130	2809	4496	34
Manufacturing	3557	3017	255	3914	92
Electricity,Gas and Water	1152	868	90	481	83
Construction	2845	994	512	2839	397
Wholesale & Retail trade	7269	1923	1228	7047	718
Transport & Storage	4053	1762	1023	3022	384
Communication	682	161	151	712	134
Finance,Property & Bus Services	2367	831	369	477	183
Public admin. & Defence	1396	453	382	1337	425
Community Services	8562	1539	1007	4865	764
Rec, Personal & Other Services	2601	796	556	3286	320
Non-classified economic unit	212	93	38	307	8
Total (Incl not stated)	39047	13712	11360	49729	6149
INDIVIDUAL INCOME (ANNUAL)					
\$0-\$6000	27647	9001	8266	22696	3408
\$6001-\$9000	6816	1862	1306	6400	944
\$9001-\$12000	5679	1618	1333	6080	1041
\$12001-\$15000	6166	1540	1273	5894	975
\$15001-\$18000	6555	1958	1243	8076	893
\$18001-\$22000	5457	2220	1237	5331	678
\$22001-\$26000	3259	1474	788	3089	355
\$26001-\$32000	2781	1588	674	2975	289
\$32001-\$40000	1465	709	1129	2793	131
\$40001-\$50000	533	243	553	1134	51
\$50000 AND OVER	541	138	436	1050	105
Total (Incl not stated)	72246	24015	18076	74063	9869
LEVEL OF QUALIFICATION					
Degree or higher	2127	648	415	1744	178
Diploma	2112	773	560	2104	275
Trade	7521	3413	2023	9268	828
Other	6107	2135	1576	6671	893
Not qualified	48183	15146	11976	46007	6779
Not stated	6195	1898	1522	6464	1121
Total (Incl not stated)	72245	24015	18074	72258	9871

\* 1991 Census data unavailable  
SOURCE: ABS Profile of Legal Local Government Area - Usual Residents Count (Census 1986)



- Surprisingly, in absolute terms, the Mackay Area, with 7,100 tradespersons in the workforce, shows up as being more industrialised than the Gladstone Area with 6,349.
- Rockhampton's relatively underdeveloped manufacturing/industrial base is reflected in the fact that it had only 2,659 tradespersons. The Central Highlands had 1,816 and the Central West 827.
- The dominant role of 'Wholesale and Retail Trade' as a major employer in the Rockhampton Area (7,269) and Mackay Area (7,047) is evidenced by the fact that this industry category accounts for 18.6% and 14.2% of their respective workforces.
- 'Community Services' is a significant employment industry for all five sub-regions, ranging from 16.8% for the Rockhampton Area to 8.9% for the Central Highlands.
- 'Manufacturing' accounts for a high 22% of employment in the Gladstone Area, and then tails off rapidly, with Rockhampton (9.1%), Mackay (7.9%), Central Highlands (2.2%) and Central West (1.5%).
- 'Mining' is a significant employer only in the Central Highlands Area, with 24.7% of the workforce, followed by Mackay Area with 9% and Rockhampton Area with 4%.
- 'Transport and Storage' is also a very important source of employment across the Region. In the Gladstone Area, this industry employs 12.9% of the workforce, making it the next most significant employment industry after manufacturing. In the Rockhampton Area, this industry employs 10.4% of the workforce, making it the second largest employer after 'Community Services'. The Central Highlands (9%), Central West (6.2%) and Mackay (6.1%) Areas all depend on this industry as a major source of employment.

### 3.11 MANUFACTURING

Table 4 in Background Report No. 1 (BR.1) shows Manufacturing Profiles by LGA for the CQ Region for the years 1986-87 and 1988-89, and changes in the Region's manufacturing base over this two year period.

A dominant feature of these data is that, whereas Central Queensland had 480 manufacturing establishments compared with Queensland's 5,960 in 1986-87, that is, 8% of the Queensland total, by 1988-89 the CQ component had fallen to 441 establishments, a fall of 8%, whilst the Queensland total had risen to 6,470, an increase of 8.5%. So, in terms of the number of manufacturing establishments, the

CQ share had fallen from 8% in 1986-87 to 6.8% in 1988-89. This could suggest that Central Queensland had a disproportionate share of marginal operators who succumbed with the advent of the recession and the high interest rate policy regime.

It is noticeable that Fitzroy Shire contains 251, or 57%, of Central Queensland's manufacturing establishments, of which Rockhampton City contains 93 and Gladstone City 65. Gladstone, however, has a number of large scale operations which account for its greater significance in terms of 'tradespersons' in the workforce. (Refer Sub-Section 3.10)

The Central West Statistical Division contained only sixteen manufacturing establishments in 1988-89. All of these were small scale operations.

Mackay Statistical Division had 170 manufacturing establishments in 1988-89, of which 64 were located in Mackay City and 48 in the adjacent Pioneer Shire.

*Clearly, new manufacturing operations are needed in Central Queensland, not only to boost the Region's value-adding contribution, but also to provide the means for expanding employment and workforce skilling opportunities.*

### 3.12 TOURISM

Although Queensland experienced strong tourism growth throughout the 1980s, Central Queensland did not gain a proportionate share in that growth. Table 3.6 provides a trend analysis of tourism performance in terms of key hotel/motel indicators for Central Queensland over the period 1984 to the September Quarter 1992 on a Statistical Division basis and for key tourism-oriented LGAs.

In 1984 the CQ Region (excluding Miriam Vale Shire) accounted for 21.7% of Queensland's dollar takings from commercial hotel/motel accommodation.

Fitzroy Statistical Division accounted for 9.2% of the State's total, with Rockhampton City accounting for 3.2% of the Division's total.

Mackay Statistical Division had a 12.2% share of the Queensland total, with Whitsunday Shire accounting for 8% of that share.

The Central West Statistical Division had a tiny 0.4% of the State's total.

By 1987, Fitzroy Statistical Division's share of the Queensland total had fallen to 6.8%, Mackay Statistical Division's share had risen to 13.1% and the Central West Statistical Division was static at 0.4%.

TABLE 3.6 - COMPARATIVE TOURISM PERFORMANCE: HOTELS AND MOTELS - 1984, 1987, 1991 AND 1992

Statistical Division and Local Government Areas	1984				1987				1991*				1992*				% Change \$ Takings 1984-87	% Change \$ Takings 1987-91	% Change \$ Takings 1991-92
	Takings From Accom.	Market Share Old.	Annual Average Room Occ.	Guest Nights	\$ Takings From Accom.	Market Share Old.	Annual Average Room Occ.	Guest Nights	\$ Takings From Accom.	Market Share Old.	Annual Average Room Occ.	Guest Nights	\$ Takings From Accom.	Market Share Old.	Annual Average Room Occ.	Guest Nights			
Gton City & Callopoe Shire	3689	1.98	38.15	88318	5774	1.63	183755	46.48	7586	1.34	212082	49.48	7422	1.19	207972	48.85	56.52	31.38	-2.16
Rockhampton City	6021	3.24	62.55	165180	8092	2.29	348048	57.43	11242	1.99	404390	62.10	12125	1.94	411560	61.90	34.40	38.93	7.85
LWingsstone Shire	4612	2.48	71.45	71653	7386	2.09	221930	41.80	5610	0.99	199950	35.08	8293	1.33	201111	41.28	80.15	-24.05	47.83
Rest of Fitzroy Stat. Divn.	3005	1.82	49.08	87903	3788	1.07	143912	52.50	6055	1.07	178877	54.03	5418	0.87	179643	55.43	26.06	59.85	-10.52
FITZROY STAT. DIVN.	17023	9.15	53.33	413054	24040	6.80	897645	50.10	30943	5.47	995299	51.13	33869	5.41	1000286	53.08	41.22	28.71	9.46
CENTRAL-WEST STAT. DIVN	690	0.37	57.48	20561	1306	0.37	57226	47.45	2813	0.50	98824	50.38	2789	0.45	95207	49.93	89.28	115.39	-0.85
Mackay City	5221	2.81	66.25	161047	6186	1.75	239905	71.57	8822	1.58	305321	55.15	8919	1.43	304694	58.90	18.48	42.61	1.10
Pioneer Shire	1331	0.72	41.85	37930	3450	0.98	133797	48.30	5087	0.90	137505	37.68	5125	0.82	127859	41.78	159.20	47.45	0.75
Whitsunday Shire	14956	8.04	64.83	260470	35307	9.98	698876	64.60	44184	7.82	749287	43.48	50870	8.13	827709	47.78	136.07	25.14	15.13
Rest of Mackay Stat. Divn.	1128	0.61	47.00	32037	1505	0.43	56245	52.83	2220	0.39	72945	50.10	2306	0.37	74795	47.48	33.42	47.51	3.87
MACKAY STAT. DIVN	22636	12.17	61.13	491484	46448	13.13	1130823	61.88	60313	10.67	1285138	48.40	67261	10.75	1335057	49.60	105.20	29.85	11.52
TOTAL CENTRAL QLD.	40349	21.69	925098	57.31	71794	20.30	2085694	53.14	94069	16.64	2359061	49.97	103919	16.61	2430550	50.87	77.93	31.03	10.47
TOTAL QUEENSLAND	186049	100.00	54.73	6179875	353708	100.00	10564933	57.53	565202	100.00	13445828	51.68	625802	100.00	14401751	54.65	90.12	59.79	10.72

\* Year to end of Sept. Qtr.

Source : Tourist Accommodation, Queensland, All Quarters 1992, ABS Catalogue No. 8635.0

DISCLAIMER : Data for Guest Nights &amp; Room Occupancy for years 1984 &amp; 1987 may have been computed/estimated from original data.

By 1992, on the basis of the first three Quarters' figures, Fitzroy Statistical Division's share had been reduced further to 5.4% of the Queensland total.

The Mackay Statistical Division had also suffered a substantial market share loss to 10.8%, and the Central West had slightly increased its share to 0.5%.

An interesting aspect of these data is that although guest nights for all three Statistical Divisions increased dramatically between 1984 and 1987, these increases were not accompanied by equivalent increases in dollar takings, suggesting greater usage of economy accommodation and/or discounting of up-market accommodation.

Between 1987 and 1991, the increase in guest nights was much less dramatic, but dollar takings jumped significantly, particularly for the Mackay Statistical Division. This partially reflects greater usage of four star accommodation.

Overall, while visitor numbers have been increasing steadily as well as dollar takings (not discounted for inflation), Central Queensland's tourism performance as measured by market share of the Queensland total has not been particularly impressive. This is mainly due to very sanguine performances by the Gold Coast and Cairns Areas in particular.

Short term caravan park market share in terms of dollar takings for the CQ Region also fell significantly, from 17.5% in 1984 to 14.2% in 1987, but recovered to 17.3% in 1992. (Table 6, BR.1)

Long term caravan park takings, on the other hand, showed a continuous market share decline, from 16.4% of the State's total in 1984 to 12% in 1992. (Table 7, BR.1)

Despite losing some ground in market share terms, the CQ tourism industry has continued to grow steadily in absolute terms, albeit not as fast as the Cairns/Tablelands Area, which is particularly well-favoured, being a port of entry hub and a target for discounted air fares in the price war that commenced with the advent of Compass Mark I into the deregulated domestic airline market and has resumed with the re-entry of its successor, Southern Cross Airlines.

There are some very encouraging signs on the tourism front in Central Queensland. These include:

- . There is a conviction that the time has arrived to join forces and promote the diverse attractions of Central Queensland as a Super-Region.
- . There has been a surge of investment in the Whitsundays Area which has upgraded many existing facilities and established new ones such as the Laguna Quays Resort near Mackay.

- . There is a realisation that full advantage has not been taken of the use of charter flights to make it easier for overseas and domestic visitors to visit the Region. In a competitive airline environment, it will be easier to negotiate lower rates provided high load factors can be assured.
- . The growth of UCQ and the regionalisation of State Government departments has led to an increase in the number of visitors to the Region and the number of conferences and symposiums being held in the Region. (The Grasslands Conference, held in Rockhampton in mid-February 1993, attracted 800 delegates. Perhaps greater use should be made of these conferences to promote the attractions of the Region.)
- . There is an emerging enthusiasm and commitment to 'sell' the Region in a professional manner, which includes dissecting the potential market and targeting specific segments.
- . The publicity being given to Central Queensland as the prime growth region of the 1990s will provide further favourable tourism spin-off.

Taken overall, this Region is poised for the most sustained period of tourism growth that it has yet experienced.

### 3.13 RETAILING

Table 9, BR.1, contains the latest available (1986) ABS Retailing Statistics presented on a Statistical Division and LGA basis. These data show up the importance of Rockhampton as a major retail centre, with an annual turnover of \$424.9 million; that is 3% of the Queensland total. Mackay had an annual turnover of \$285.4 million and Gladstone \$135.7 million, giving them 21.3% and 10.1% CQ market shares respectively.

As one would expect, the more populous Fitzroy Statistical Division dominated, with 58.7% of the CQ total, which translates into 5.6% of the State's total.

Mackay Statistical Division had 37.3% of the CQ total, or 3.5% of the State total.

Central West Statistical Division accounted for only 3.6% of the CQ total and 0.3% of that of the State.

### 3.14 BUILDING APPROVALS

This important indicator of economic activity shows that between 1985-86 and 1990-91, the building industry rode out the recession well in Fitzroy Statistical Division, with the 1990-91 value of approvals as high as the 1985-86 figures. (Table 8, BR.1)

Mackay Statistical Division did not fare as well, recording a loss of 16.8% over the same period.

The Central West Statistical Division fared worse still, with a reduction of 76% in value of approvals.

Overall, over the five year period, Central Queensland experienced a reduction of 8% in the value of building approvals, compared with 1.6% for the State as a whole.

Some LGAs such as Livingstone, Fitzroy and Pioneer Shires experienced spectacular growth in 1991-92.

### 3.15 TERTIARY EDUCATION

#### 3.15.1 INTRODUCTION

Tertiary education is an important and fast-growing value-adding industry in Central Queensland. The main providers are the Colleges of Technical and Further Education (TAFE) and the UCQ, each with delivery outlets at various locations throughout the Region.

The Longreach Pastoral College and the Emerald Agricultural College provide rural-oriented education which is extremely valuable to residents of remote areas and the pastoral industries that form their livelihood.

*Education adds value to human resources and it is these human resources that are instrumental in generating all value-adding to material and other human resources alike.*

#### 3.15.2 THE UNIVERSITY OF CENTRAL QUEENSLAND (UCQ)

The University's Mission Statement reads:

‘The University of Central Queensland will provide a range of higher educational opportunities and complementary programs of research and community service.’ (UCQ *Strategic Plan 1992-96*, p. 1)

In servicing this Mission, the University has adopted the following broad goals:

- ‘ Pursue excellence in teaching and learning and in research.
- Develop unique characteristics by which UCQ will be recognised and which will offer UCQ a distinctive niche.
- Contribute to the enrichment of the cultural, social and economic life of Central Queensland through the activities of UCQ’s staff and students.
- Develop and implement innovative learning practices, and as part of this, achieve excellence in distance education.
- Develop activities which, whilst having relevance or applicability to the Region, enable UCQ to contribute significantly to a national or global issue.
- Achieve regional, national and international recognition for the quality of UCQ’s activities.’ (UCQ *Strategic Plan 1992-96*, p. 2)

In line with these seven broad goals, the University, with its parent campus at Rockhampton, has established regional campuses at Gladstone, Bundaberg, Mackay and Emerald. All campuses are growing steadily with permanent infrastructure in terms of buildings, classrooms, library and computer facilities established at all centres except Emerald, where UCQ shares well-furbished facilities with TAFE.

The Mackay Campus has recently been re-located at a cost of \$3 million, and new campuses are to be established in Gladstone and Bundaberg in late 1993 or early 1994.

The Gladstone campus has attracted special funding from DEET due to its intended concentration on technical and engineering teaching and applied research. This is fair recognition of the type and scale of developments expected to occur in Gladstone over the next decade and evidence of the University’s commitment to encourage and support these exciting developments.

As well as providing full-time and part-time on-campus courses at undergraduate and postgraduate levels, the UCQ has successfully entered two education niche markets - those of Distance Education (domestic) and Overseas Student Education (on-campus).

### 1. Distance and Continuing Education

The UCQ is one of Queensland's two approved providers of distance education, the other being the University of Southern Queensland (USQ).

A number of courses are offered through the external mode covering the disciplines of Engineering, Science, Business, Mathematics and Computing, Health Science and Education. These courses are available to students from anywhere in Australia.

Continuing education is also offered, mainly locally. Short courses are tailored to the needs of intending students and/or employer client groups.

### 2. The International Education Program

The University has been involved in providing undergraduate and postgraduate education programs for full fee-paying overseas students since 1989. Table 3.7 shows how student numbers have increased from 71 in 1989 to 208 in 1992, yielding an estimated income (export earnings) of \$2.1 million in 1992.

**TABLE 3.7: FULL FEE PAYING OVERSEAS STUDENTS, 1989-1992**

Year	Students Enrolled	Equivalent Full-Time Student Units (EFTSU)	Income from Fees (\$'000)
1989	71	68.24	n/a
1990	105	93.42	\$1,116
1991	195	172.78	\$1,498
1992	208	193.26	(est)2100

Source: Zimmer, B., CQ Journal of Regional Development, Vol.1 No.2, Sept.1992



### **Projected Growth**

Table 3.8 depicts expected growth in student enrolments (internal and external) from 1992 to 1995. In all faculties barring Health Science (which does not easily lend itself to higher degree programs), the big growth is in the higher degree segment of the market.

Projected external enrolments at the Bachelor Degree level show wide variation. Applied Science and Education plan increases of 18% and 16% respectively, whilst Business, coming off a zero base, plans to have a modest 102 enrolments by 1995. Health Science and Arts show declines of 31% and 44% respectively, whilst Engineering does not venture from its zero base.

The highest growth is predicted to occur at the Graduate Diploma level, with an overall increase of 41.5% over the three year period.

At the Graduate Diploma level, Health Science, coming off a small base, shows a spectacular increase of 833.3%, while Business, with an established reputation in the GDM Program, anticipates a virtually static situation in this market segment and opts instead for 18.9% growth at the Bachelor's level.

The University-wide projected growth of 19.1% in student numbers over a three year period will bring total enrolments up to 6,326.

### **Building Program**

Table 3.9 documents the University's Capital Works Program over the past three years, which cost approximately \$14.2 million, of which \$6.3 million went to construction firms with headquarters in the CQ Region.

This injection of confidence into the local building industry was timely and no doubt created a number of local job opportunities not only in the building industry itself, but also in the labour-intensive building supply industries.

### **Research Program**

The University's Research Program aims:

‘To establish the University as a research institution recognised nationally and internationally, and to facilitate appropriate applications of its intellectual resources to the resolution of community problems (including commercial applications).

**TABLE 3.8: UNIVERSITY OF CENTRAL QUEENSLAND:  
PROJECTED TEACHING PROFILE TO 1995 (a)(b)**

Faculty and Level of Course	1992			1995			% Growth in Total 1992-1995
	Internal	External	Total	Internal	External	Total	
<b>ARTS</b>							
Enabling	13	-	13	11	1	12	-7.69
Bachelor	587	172	759	742	97	839	10.54
Higher Degree	8	-	8	44	52	96	1100.00
<b>TOTAL</b>	<b>609</b>	<b>172</b>	<b>780</b>	<b>797</b>	<b>150</b>	<b>967</b>	<b>23.97</b>
<b>APPLIED SCIENCE</b>							
Enabling	8	-	8	6	-	6	-25.00
Assoc.Diploma	189	209	392	190	158	349	-10.97
Bachelor	398	371	768	429	453	883	14.97
Grad.Diploma	5	93	99	10	118	128	29.29
Higher Degree	18	12	29	77	31	108	272.41
<b>TOTAL</b>	<b>618</b>	<b>678</b>	<b>1295</b>	<b>713</b>	<b>760</b>	<b>1473</b>	<b>13.75</b>
<b>BUSINESS</b>							
Assoc.Diploma	17	6	23	-	-	-	-
Bachelor	1018	-	1018	1108	102	1210	18.86
Grad.Diploma	9	207	216	24	182	206	-4.63
Higher Degree	43	150	193	151	207	358	85.49
<b>TOTAL</b>	<b>1087</b>	<b>363</b>	<b>1450</b>	<b>1282</b>	<b>491</b>	<b>1774</b>	<b>22.34</b>
<b>ENGINEERING</b>							
Assoc.Diploma	129	21	151	94	22	116	-23.18
Bachelor	355	33	388	502	55	557	43.56
Grad.Diploma	-	0	0	-	-	-	-
Higher Degree	18	4	22	38	9	46	109.09
<b>TOTAL</b>	<b>503</b>	<b>58</b>	<b>561</b>	<b>634</b>	<b>85</b>	<b>719</b>	<b>28.16</b>
<b>EDUCATION</b>							
Diploma	0	-	0	-	-	-	-
Bachelor	513	143	655	408	170	578	-11.76
Grad.Diploma	25	-	25	47	5	52	108.00
Higher Degree	2	20	22	49	67	116	427.27
<b>TOTAL</b>	<b>540</b>	<b>163</b>	<b>703</b>	<b>504</b>	<b>242</b>	<b>747</b>	<b>6.26</b>
<b>HEALTH SCIENCE</b>							
Bachelor	258	241	499	345	166	511	2.40
Grad.Diploma	-	12	12	59	53	112	833.33
Higher Degree	-	-	-	23	20	43	-
<b>TOTAL</b>	<b>258</b>	<b>253</b>	<b>511</b>	<b>427</b>	<b>239</b>	<b>666</b>	<b>30.33</b>
Miscellaneous (c)	9	2	11	-	-	-	-
<b>UNIVERSITY TOTALS</b>							
Enabling	21	-	21	17	1	18	-14.29
Assoc.Diploma	336	229	565	284	180	465	-17.70
Bachelor (d)	3129	959	4088	3535	1043	4578	11.99
Grad.Diploma	39	313	352	140	358	498	41.48
Higher Degree	88	185	274	382	385	767	179.93
<b>TOTAL</b>	<b>3623</b>	<b>1689</b>	<b>5311</b>	<b>4358</b>	<b>1968</b>	<b>6326</b>	<b>19.11</b>

Notes: (a) This profile is based on the University's proposed 1993-95 teaching profile of Commonwealth funded student load plus projected additional student load associated with State-funded places and overseas fee-paying students

(b) Minor discrepancies between subtotals are due to rounding of numbers

(c) Whilst 1992 Enrolments are shown no projections of miscellaneous (single subject) enrolments are made

(d) 1992 totals include miscellaneous (single subject) enrolments

**TABLE 3.9: UNIVERSITY OF CENTRAL QUEENSLAND:  
CAPITAL BUILDING PROJECTS COMPLETED, 1989-92**

Construction Period	Project	Estimated Total Expenditure (\$'000)
A.	Built by firms with headquarters/major offices in Central Queensland	
1990	Student Union Building extensions	600
1990-91	H Grieg Turner Applied Science Building	2750
1991	Capricornia Residential College	
	(1) Masters Residence	100
	(2) Jardine House renovations	550
1991	Forgan-Smith Building, Mackay campus	1700
1991	Electrical substation	385
1991-92	UCQ Union Fitness Centre (gymnasium/sporting complex)	200
	Subtotal	6310
B.	Built by firms with headquarters outside the region	
1988-90	Health Science Building	2900
1989	HP cabling substation	200
1990-91	Faculty of Arts Building	4750
	Subtotal	7850
	TOTAL	14160

Note: Includes expenditure on furniture, fittings, etc.

Source: Zimmer, B., CQ Journal of Regional Development, Vol.1 No.2, Sept.1992

To provide a scholarly environment which fosters the training of postgraduate students, especially in research teams within areas of identified research strength.

In partnership with the Region, to undertake research and to provide consultancy services for the industries, businesses and communities of Central Queensland.

To focus applied research on the quality of life in a technological society.

To encourage collaboration with external institutions.' (UCQ *Strategic Plan*, May 1992)

The University encourages joint research and has engaged in effective partnerships with QDPI, CSIRO, LGAs, local business people and other universities.

Table 3.10 shows the distribution of External Research Grants between University Faculties. These amounts should be interpreted by reference to the comparative size of the various Faculties as roughly indicated by the 1992 enrolments depicted in Table 3.8, which should be correlated with staff numbers.

**TABLE 3.10: EXTERNAL RESEARCH GRANTS AWARDED TO  
UNIVERSITY OF CENTRAL QUEENSLAND STAFF, 1991**

Applied Science	807,844
Business	104,000
Education	294,998
Engineering	260,700
Health Science	174,600
Humanities and Social Sciences	27,000
Chancellery	67,400
<b>TOTAL</b>	<b>1,736,542</b>

Source: Zimmer, B., *Central Queensland Journal of Regional Development*, Vol. 1, No. 2, 1992.

Applied Science, the second largest Faculty, with \$807,844, convincingly outperforms all other Faculties. This may be a reflection of the predominance of technical and scientific research over economic, commercial and trade related research noted in Section 2 of this Report.

The Faculty of Education, with \$294,998, does very well for its size.

Business, the largest Faculty, performs only modestly, with \$104,000.

Research funds tend to follow proven performance. As the University grows and its reputation for excellence in teaching and research is widely known and acknowledged, it may become easier to attract research funding, but the research environment is becoming increasingly competitive.

The University has a key role to play in the growth and development of the CQ economy. It can provide leadership in bringing this Region into harmony with the emerging values of a new economic order where Australia's best opportunities appear to be in the fastest growing economies of the world - those of the near Asian countries.

### 3.15.3 TAFE

The CQ Region is well serviced with TAFE Colleges in a number of locations, including Rockhampton, Gladstone, Biloela, Clermont, Proserpine, Airlie Beach, Mackay, Emerald, Woorabinda and the Capricorn Coast. These colleges provide a range of courses including tourism industry training and apprenticeship training for many of the trades used in the Region.

Rockhampton College of TAFE has received Australia-wide acclaim for a specially designed program to meet the training needs of the QEC in the construction of the Stanwell Power Station. This program was developed with the cooperation of the trade unions and contractors involved, and was based on competency standards agreed by the parties involved.

Forecasts indicate that teaching and training activity by TAFE in the CQ Region will grow significantly over the next two years.

**TABLE 3.11: TAFE COLLEGE GROWTH 1990-94**

Year	Contact hours	Student numbers
1990	800,000	2,300
1992	1,400,000	4,000
1993	1,500,000	4,300
1994	2,000,000	5,700

Source: TAFE Rockhampton, 1993.

### 3.15.4 LONGREACH PASTORAL COLLEGE

The Longreach Pastoral College is dedicated to excellence in the rural sector through quality training and development of practical people. It was established in 1967, and now has 131 full-time residential students. Courses offered are at the

Certificate, Advanced Certificate and Associate Diploma levels. The average intake at the College is forty Advanced Certificate and thirty Associate Diploma students each year. Longreach Pastoral College is the only college of its type specifically servicing the needs of the semi-arid rangelands pastoral industry in Australia. The College services the pastoral areas of Queensland, with 80% of students coming from within the State. If finances were available, the College could expand to 200-250 students to meet the increased demand for courses now being shown from both within and without the Region.

Graduates have a very high placement rate in industry, with 97% offered positions at graduation. Retention in the positions filled is also high, with 80% employed in the rural industry five years after graduation.

The College is an integral part of the servicing of the Region and is also a major income source for the Longreach Area. Expansion is highly desirable for the benefit of the Region and the industry.

#### 3.15.5 EMERALD AGRICULTURAL COLLEGE

This College was established in 1971 under the Rural Training Schools Act. It now has 180 full-time residential students. Courses at the Certificate, Advanced Certificate and Associate Diploma level are offered. Major areas covered are Crop Production, Stock Production, Property Development and Irrigated Crop Production.

There are two campuses - Emerald campus, with 1,200 hectares, and a beef fattening property, 'Berrigurra', which is situated 50 km east of Emerald, near Blackwater. Both Colleges operate as commercially viable enterprises as well as providing training opportunities for the primary producers of the future.

### 3.16 THE 1991 ABS CENSUS DATA

When detailed 1991 ABS Census data becomes available in early 1993, they will reflect considerable changes in some of the demographic and workforce characteristics analysed earlier in this Section, which were based on 1986 Census data.

A significant increase in Central Queensland's share of post-secondary qualifications over those recorded in 1986 (shown in Table 3.12) can be expected.

An increase in the percentage of the CQ population holding degrees can be expected due to (i) the increased number of qualified University Staff living in the area; (ii) the increased number of qualified public servants living in the area as a result of regionalisation, and (iii) the increased number of qualified management

staff that have moved into the area with the expansion of heavy manufacturing activities.

**TABLE 3.12: POST-SECONDARY QUALIFICATIONS:  
CQ AND QUEENSLAND 1986**

	CQ (%)	QLD (%)
Degree	2	3
Diploma	2.2	2.6
Other (Certificates etc.)	6.6	7.8
Trade	8.3	8.1
No Qualification	80.9	78.5

Source: Zimmer, B., CQ Journal of Regional Development, Vol.1 No.2, Sept.1992

It is likely that there will be an increase in the number of tradespersons in the area due to the increased skills required by organisations such as QMAG, Minproc, ICI Yarwun, Stanwell Power Station and various other construction projects, including those at UCQ.

Unemployment will no doubt be worse than it was in 1986, as well as being deployed differently across age groups and genders due to changes in education and training policies.

Average income levels in Central Queensland will more than likely be higher due mainly to two factors: (i) fewer very low income (unskilled) people in the workforce due to the advent of the recession; and (ii) an infusion of more highly qualified, higher income people into the CQ economy. Lower profits in small business could offset this effect to some extent, but more than likely will not swamp it.

Whatever the changes reflected by detailed analysis of the 1991 Census data are, apart from a deepening of unemployment and some population loss in the Central West and other rural Shires (both phenomena already discussed), it is unlikely that they will provide too many negative signals.

### 3.16.1 THE ROBINSON/JENSEN PROJECTIONS

Three studies funded by DBIRD and undertaken by J.J. Robinson and R.C. Jensen of the Regional and Urban Economics Research Unit of the University of Queensland are of particular interest, given the context of the present Study.

The target areas for these studies were the Fitzroy, Mackay and Central West Statistical Divisions which, apart from Miriam Vale Shire (which is covered by the Robinson/Jensen Wide Bay-Burnett Study) is equivalent to the CQ Region as defined.

All three studies aimed to assist strategic planning by putting a statistical dimension on the 'most likely' economic future of the respective regions (ABS Statistical Divisions); that is, 'the expected path that the regional economy will follow if no major economic changes occur and the region develops according to rates of growth similar to those experienced in the past'.

The methodology used is a hybrid shift-share/input-output extrapolation technique which addresses the medium to long term growth prospects of the target areas.

The projections provided by each Study will be briefly discussed in turn and some comments offered on each in the light of the analysis in Sections 2 and 3 of the present Study.

#### (1) Projections of the Nature and Structure of the Economy of the Fitzroy Region, 1990-2011

The Report was dated March 1992. By the Fitzroy Region is meant the ABS Fitzroy Statistical Division (FSD), which incorporates all of the Central Highlands Sub-Region, all of the Rockhampton Sub-Region and Gladstone City and Calliope Shire from the Gladstone Sub-Region, but not Miriam Vale Shire, defined as part of the Gladstone Sub-Region for the purposes of the Central Queensland Regional Economic Development Strategy Study (CQ RED Strategy Study), but falling within the Wide Bay-Burnett Statistical Division.

The authors state that the 'Study provides a base rate of growth for Fitzroy' (p. 1) (Statistical Division, not Shire) on the assumption that 'no major developments take place which will alter the present economic structure of the region' (p. 1).

Given that the present CQ RED Strategy Study has identified a plethora of reasons why the economy of the FSD, embracing a hefty portion of the Bowen Basin, will change significantly in terms of past growth trends, if not in structure, there may be some questioning of projections based on the use of the 'do nothing' option.



However, projecting this base case is a very useful exercise. It provides a basis for assessing the impact of any major changes that do occur. The model can be re-calibrated as more recent data becomes available.

Although trend data for commodity values were available to the CQ RED Strategy Study Team, being able to provide reasonably accurate estimates of the value of services on a Statistical Division basis, in order to compute Gross Product and Estimates of total Exports and Imports (only port throughput figures were acquired) is very useful in assessing the performance of the FSD relative to other areas and to the State as a whole. It is interesting and encouraging to note that estimated changes in exports are more than double the estimated changes in imports over the 1990-2001 period and that the favourable balance of trade figures improve even further over the 2001-2011 period.

The population projections are in line with the 'medium' range projections provided by Cooper & Skinner, 1992, used in Table 1 of the present Study.

Coal exports dominate in the composition of CQ exports and more so FSD exports and, in 1991-92, throughput for the Port of Gladstone attained new records with annual percentage growth rates in the region of 10% in 1991-92.

Industry announcements suggest an annual increase of about 7% over the next five years for FSD.

The 'major changes' assumed away in the model are occurring: in order to retain predictive value, the model would need to be recalibrated every time a new data set becomes available.

It would appear that projections on the 'nature and structure' of a regional economy that do not embody the impact of recently completed projects, due to their impact not yet showing up in the data, will progressively understate the projected economic performance of a fast growing region.

When mining and manufacturing projects are committed, reasonably reliable estimates of commissioning dates and the commencement dates of operations and planned output are usually available. The predictive ability of the model would be enhanced by the incorporation of this information.

Likewise, projects under study that have a high probability of being advanced could be imported into the model. Using stochastic techniques, sensitivity testing could be carried out to provide better planning and decision-making information that would accrue from straight extrapolations.

**(2) Projections of the Nature and Structure of the Economy of the Mackay Region, 1990-2011**

The Mackay Region is the ABS Mackay Statistical Division (MSD). It is termed the Mackay Sub-Region for the purposes of the present Study.

The aims and methodology of the Study are the same as discussed in (1) above.

Other things being equal, the gross output of the MSD is projected to grow at a slower rate than that of FSD, but the annual population growth rate is higher. The annual growth in employment is well below that for FSD, and the terms of trade are positive, but less favourable than those for FSD.

The same observations apply as for (1) above. The coal dominance is set to grow rapidly over the next five years.

**(3) Projections of the Nature and Structure of the Economy of the Central West Region, 1990-2011**

The Central West Sub-Region is the ABS Central West Statistical Division (CWSD). For the purposes of the present Study, it is termed the Central West Sub-Region.

Consistent with the analysis in the present Study, the economy of the sluggish CWSD will find it difficult to record a positive growth rate in gross output over the next decade and absolute population decline is imminent unless positive action is taken to arrest and reverse present trends. Employment growth prospects on the basis of existing trends are poor.

The Central West has very favourable terms of trade with exports nearly two and a half times the value of imports.

It does not require a 'major change' to alter the status quo assumed in the model in the case of the Central West.

The assumed conditions are close to the real ones. However, a couple of medium-sized employment generating projects like the proposed mutton abattoir could inject some confidence into this economy whose virtual *raison d'être* is wool and beef production.

Overall, the Robinson/Jensen studies provide a very valuable set of base projections upon which to build in new 'economic events' and new data as these become available.

### 3.17 REFERENCES

ABS, Cat. No. 8635.0.

ABS, *1986 Census*.

ABS, *Queensland Year Book*, 1992.

ABS, *1991 Census of Population and Housing*.

ABS, Special Printout based on Monthly Review of Labour, Cat. No. 6201.3.

Cooper, J. and Skinner, J.L. 'Population Projections for Queensland and Statistical Divisions, 1986-2001, and Local Government Areas and Statistical Districts, 1986-2006', 1991 Revision, *Report to the Queensland Department of Housing and Local Government*, Applied Population Research Unit, Department of Geophysical Sciences and Planning, University of Queensland, 1992.

Emerald Agricultural College, Personal communication, February 1993.

Longreach Pastoral College, Personal communication, February 1993.

Robinson, J.J. and Jensen, R.C., *Projects of the Nature and Structure of the Fitzroy Region, 1990-2001*, Regional and Urban Economics Research Unit, Department of Economics, University of Queensland, March 1992.

Robinson, J.J. and Jensen, R.C., *Projects of the Nature and Structure of the Mackay Region, 1990-2001*, Regional and Urban Economics Research Unit, Department of Economics, University of Queensland, April 1992.

Robinson, J.J. and Jensen, R.C., *Projects of the Nature and Structure of the Central West Region, 1990-2001*, Regional and Urban Economics Research Unit, Department of Economics, University of Queensland, April 1992.

TAFE, Rockhampton, Personal communication, February 1993.

University of Queensland, *Strategic Plan*, may 1992.

Zimmer, B., University of Central Queensland: Projected Teaching Profile to 1995, Personal communication, February 1992.

Zimmer, B., 'Some dimensions of the University of Central Queensland's contribution to the Region's economy', *Central Queensland Journal of Regional Development*, Vol. 1, No. 2, 1992.

## **SECTION 4**

### **NEEDS AND OPPORTUNITIES: A COMMUNITY PERSPECTIVE**

## **4.0 NEEDS AND OPPORTUNITIES: A COMMUNITY PERSPECTIVE**

### **4.1 INTRODUCTION**

This Section of the Report is based on information gathered from two separate sources:

- (1) the series of Future Search Workshops conducted in the Central West and the Central Highlands between 21 March and 9 August 1992; and
- (2) a 'Needs and Opportunities' Attitudinal Survey of residents of the Rockhampton, Gladstone, Mackay, Central Highlands and Central West Sub-Regions designed to elicit a representative cross-section of views on the desirability of current economic development trends across Central Queensland, as well as preferred future economic development directions.

A summary of the ideas and initiatives that emerged from these Future Search Workshops is provided in Background Report No. 2 (BR.2).

Details of the findings of the 'Needs and Opportunities' Attitudinal Survey are contained in Background Report No. 3 (BR.3).

### **4.2 CENTRAL WEST: REGIONAL AND SUB-REGIONAL VERSUS LGA PERSPECTIVES**

As the Future Search Workshops were conducted on an LGA basis, it may be argued that the issues raised at each Workshop have relevance (in a strict sense) only to that particular LGA, and therefore should not be interpreted as representing sub-regional or region-wide concerns, viewpoints or aspirations.

In the Central West in particular, the problems confronting individual LGAs and the limited range of economic development opportunities available to them are in fact a microcosm of those that apply to the entire Central West Sub-Region. This is due to the fact that the economy of the Central West is (almost) exclusively reliant on two export-oriented commodities - beef and wool - as clearly depicted in Figure 2.6.

In terms of value of primary commodity production, wool accounts for 49.8% and cattle for 46.4% of the Central West total.

Naturally, LGAs compete with each other for government funding and other advantages. Some have fared worse than others in terms of rural decline and drought. Some have to contend with more severe isolation problems and more inferior levels of service than others. Despite these dissimilarities, all LGAs have a common interest in increasing the economic viability of the Central West Sub-Region.

### 4.3 BACKGROUND

Between 21 March and 9 August 1992, DBIRD, using trained facilitators, conducted Future Search Workshops in the Central Western Shires of Aramac, Barcaldine, Blackall, Ilfracombe, Longreach, Tambo and Winton, all of which are serviced by the recently formed Remote Area Planning and Development Board (RAPDB).

Within the same period, Future Search Workshops were conducted by a group of local facilitators trained by Jean McRuvie, then Development Officer, Emerald Shire, for the Shires of Bauhinia, Duaringa, Emerald, Jericho and Peak Downs; that is, the five Central Highlands' Shires which are the regional development responsibility of the recently constituted CHPDO.

Separate Reports were prepared on each of these one-day Future Search Workshops.

Future Search Workshops were also conducted by DBIRD in mid-October 1992: at Boulia (10 October), Birdsville (11 October) and Bedourie (11 October). Copies of the Reports on these Workshops were received in early January 1993 - too late to be incorporated into this summary.

This document summarises the findings of the Future Search Workshops for seven Shires out of the eleven that make up the Central West Sub-Region separately from those relating to the five Shires that comprise the Central Highlands Sub-Region.

The information provided by these Future Search Workshops provided very valuable input for the Central Queensland Regional Economic Development Strategy Inception Study.

The strategic direction provided through this type of participatory evaluation of options is more comprehensive and more reliable than would be obtained by using more common survey instruments such as reply-paid, posted questionnaires.

Furthermore, well-facilitated Workshops, as these were, are an excellent way of screening potential initiatives and projects and providing community-based priority rankings.

This shortlisting of economic development options assists government agencies such as DBIRD in arranging pre-feasibility studies of projects that, on the basis of the preliminary screening, show most promise. In addition, the Future Search exercise generates community involvement and fosters better community/government relations, as well as establishing constructive alliances and commitment to, as well as ownership in, the regional economic development process.

#### 4.4 CENTRAL WEST: THE ECONOMIC BASE

The economic bases of the Central Western Shires are very similar; all are characterised by heavy reliance on beef and wool production. It was to be expected that there would be a close similarity between how the residents of each Shire assessed the future needs and opportunities of these Shires, all of which were confronted with similar problems. Economic problems such as sensitivity to price fluctuations on international commodity markets, high transport costs due to comparative isolation, shrinking business and job opportunities and falling incomes had exacerbated sociological problems, such as general population decline and the permanent loss of a high proportion of the best educated and more highly skilled cohorts of the population.

The economic similarities and commonality of interests that drew these Shires together in attempting to find solutions to what appeared to be endemic problems created a difficult 'problem' in economic development terms when it came to identifying projects and initiatives that had the potential to provide a boost to the economies of these Shires.

An examination of Table 4.1 highlights the nature of this economic development dilemma in that the similarity in identified problems and limited opportunities has led to a similarity in proposed solutions. However, as economies of scale would suggest that each Shire cannot possibly support a wool scour or an abattoir, it is necessary to think in terms of what is good for the Central West, rather than in terms of the needs of individual Shires if a strong case for winning back value-adding to staple products is to be made.

The establishment and seed funding of the RAPDB provides the vehicle for presenting a cohesive case that has the endorsement of the eleven Shires and, on their behalf, an acceptance of the outcomes of the application of criteria set out in DBIRD-sponsored generic studies on locational decisions, as well as the sizes and locations of wool scouring and meat processing facilities, should they be deemed to be economically viable.

#### 4.5 CENTRAL WEST: FUTURE SEARCH WORKSHOPS - THE OBJECTIVES

The objective of the Future Search Workshops was to identify a community vision for the future development of the various Shires in the Central Western Sub-Region of Queensland. Local participants discussed issues such as the strengths and weaknesses of their respective Shires, the present state of major industries, the potential to develop new industries and the infrastructure required to facilitate the development of new and existing businesses. The roles of government, industry and the local community in the development of the economies of the Shires, and the Central Western Sub-Region as a whole, were discussed in some depth. A desire to build constructive partnerships was clearly evident.

TABLE 4.1 - CENTRAL WEST: OPPORTUNITY PRIORITY RANKINGS BY SHIRE

ARAMAC	BARCALDINE	BLACKALL	ILFRACOMBE	LONGREACH	TAMBO	WINTON
Community facility development	Water supply enhancement - horticulture industry development	Manufacturing and industry development	Wool processing	Water storage/usage management	Tourism promotion/ development	Tourism promotion/ development
Infrastructure (roads, water, electricity) improvement	Manufacturing and light industry development	Wool processing	Meat processing	Establish value-adding industries	Establish value-adding industries	Road improvements
New business/industry development (meat processing)	Infrastructure improvement	Meat processing	Small business/ industry development	Develop tertiary education supply industry eg UCQ, TAFE	Small business/ industry development	Small business/ industry development
Provision of technical education and training ie TAFE type courses	Provide transport industry services ie freight depot	Provision of incentives (for business/industry)	Tourism promotion/ development	Wool storage and treatment	Infrastructure development	Water catchment management
Tourism promotion/ development	Generate value-adding activities	Tourism promotion/ development	Roadhouse and associated development	Tourism promotion/ development	Employment, technical education training	Community development



The objective of this summary is to draw together strategic directions from the individual Workshops to provide development guidelines for the Central Western Sub-Region covered by RAPDB.

#### 4.6 CENTRAL WEST: OPPORTUNITY HORIZONS

The economies of the eleven Shires that comprise the Central West Statistical Division are heavily reliant on the production of wool and beef for export markets.

Neither activity is labour-intensive, with no downline processing of either commodity taking place in the Central West. As a consequence, the economy of the sub-region is very sensitive to price fluctuations on international commodity markets as well as exchange rate fluctuations with no fallback activities to cushion these effects.

Residents of the Central West are conscious of the need to arrest population decline by providing job-creating opportunities in both private and public sectors, but are realistically aware that the available options are somewhat limited.

There is an overwhelming conviction that the best available industrial diversification opportunities lie in value-adding to the sub-region's staple livestock products - sheep and cattle - with a viable kangaroo meat industry becoming a distinct possibility.

Tables 4.1 and 4.2 show 'Opportunity Rankings' by Shire and identified 'Potential Projects and Initiatives' by Shire respectively.

In particular, the establishment of local wool scouring and topping plants and beef and mutton processing works were given top priority rankings across the sub-region.

Tourism industry development in an integrated manner, stressing outback lifestyle and historical themes, is viewed as a further diversification opportunity.

Maintaining a full range of services in country centres, including the local provision of technical education facilities, is deemed essential to the revitalisation of the economy of the Central Western Sub-Region.

A shortage of water storage capacity, coupled with poor catchment management practices, as well as high transport costs with inadequate service levels are viewed as constraints that, if not addressed within an integrated planning framework, could inhibit development progress.

TABLE 4.2 - CENTRAL WEST FUTURE SEARCH WORKSHOPS: POTENTIAL PROJECTS AND INITIATIVES

INDUSTRY	ARAMAC	BARCALDINE	BLACKALL	ILFRACOMBE	LONGREACH	TAMBO	WINTON
Industry development	Wool scour	Meat processing, concrete products	Wool processing, top making, meat meal/fertilizer plant, horticulture	Wool scour, sheep abattoir, tannery, cottage craft	Abattoir, wool processing, wool store, native fauna (kangaroo) meat processing	Wool processing, meat processing, timber industry, horticulture	Meat meal plant, tannery, opal value-adding
Small business development	Attract new retailing businesses	Develop more retail outlets, fill empty shops	Re-cycling may be an opportunity	Provide tourism related facilities, (outback dunnies theme)	Identify and promote local business opportunities	Establish 3 new small businesses during next financial year	Arrest business closure trend
Tourism industry promotion/development	Promote tourist attractions	More packaged tours, exploit Labor Party heritage	Promote outback culture/heritage, promote historic wool scour	Outback tourism	Promote Hall of Fame, build on historic heritage	Develop and promote farm/station tourism, historic tourism, create a lake	Promote QANTAS birthplace, outback theme
Education/training facilities	Basic skills, business planning courses	TAFE facility, basic hospitality industry training	TAFE facility	Basic technical education	TAFE facility, UCQ campus	Establish rural and remote training centre	Pre-vocational training
Infrastructure development	Better roads needed	Integrate road and rail, set up freight depot	Improve roads	Provide railway services	Improve road link to west	Develop all-weather road to Springsure and Alpha	Road from Boulia to N.T. border
Natural resource development	Arrest land degradation	Better water resource management	Better water storage/conservation	Improve water resource management	Better water supply management	Improve water supply, better access to national parks	Need reliable fresh water supply
Community development	Indoor sporting complex	Foster community pride and encourage action	Better use of water for sport, more attractions for youth	Develop attractions for youth, recreation facilities	Community centre, promote historical awareness - community pride	Open learning centre, career guidance program	Town beautification, preserve historic buildings

There is clear evidence of a very positive attitude towards re-building a resilient economic base for the sub-region, albeit a somewhat different one, without detriment to the natural environment and relatively attractive lifestyle.

#### 4.7 CENTRAL WEST: SOME STRATEGIC POLICY POINTERS

These 'policy pointers', together with others developed in the Consultative Committee Workshop, will form the basis of the economic development strategy for the Central West, outlined in Section 7, and the Study's recommendations relevant to the Central West in Section 8.

- (1) Investigate the economic feasibility of establishing a mutton abattoir in the Central West as well as its most economic location, and clarify whether or not it should be serviced by one or more killing stations and where these should be located.
- (2) Investigate the economic feasibility and best location/locations for one or more wool scours in the Central West.
- (3) Explore the potential for a wool top making plant in association with the wool scouring operation.
- (4) Explore the possibility of establishing a meat abattoir and/or killing stations in the Central West and decide the most economic locations for such operations.
- (5) Conduct preliminary investigations of the potential viability of a kangaroo meat processing plant in the Central West (including the distribution of hide pre-treatment and carcass cold storage plants).
- (6) In consultation with parties who have shown an interest in a small-scale (cottage industry type) boutique wool scouring/spinning/weaving/knitting operation, explore the market potential for the product types that may be produced.
- (7) Should the establishment of one or more wool scouring or meat processing plant in the Central West prove to be feasible, LGAs should ensure that the Region's interest is placed above parochial interests by accepting what is deemed to be the best location on economic grounds.
- (8) In order to cope with the ubiquitous water shortage problem, what is needed appears to be a multi-purpose facility which demands a water storage and utilisation management strategy. This is well beyond the resources of the individual Shires. It requires a total government approach where industrial,

commercial, tourism, recreational and domestic needs are all addressed within an integrated planning framework. It should not be a piecemeal approach.

- (9) Long term water storage/utilisation management should be viewed as a permissive factor in promoting economic diversification, as well as enhancing the attractiveness of the Region to residents, potential residents and visitors alike.
- (10) Remote areas with sparse populations have always had to cope with high transport and other service costs. Considerable cross-subsidisation of these services have been justified on equity grounds, but are difficult to justify on economic grounds. Likewise, infrastructure provision being subjected to objective economic criteria is necessary if economic efficiency in public sector resource use is to be achieved.

It would appear that, rather than pushing for freight subsidisation incentives, better use of existing transport infrastructure could be achieved by adopting modern storage and freight forwarding practices, attaining better capacity utilisation and negotiating as a block for cheaper freight rates, including backloading rates. This is another critical area that needs to be examined within a regional context.

- (11) On the related issue of transport infrastructure provision, there would appear to be advantages in identifying, on a regional basis, a shortlist of the most critical infrastructural needs and ranking them. With large projects it may be better to break them down into stages such as electrification of rail to Barcaldine first, with Longreach the next stage. This exercise should involve not only Transport Queensland regional officers, but also officers from all government departments. The benefits of a total government approach with strong community involvement should be evident. 'Wish lists', however, should be realistic if desired projects are to survive a pre-feasibility scan.
- (12) The packaging and promotion of the Central West as a tourist attractor needs to be systematically planned. Different packages will need to be developed and pitched at different target markets. The Birdsville Races are known internationally. This event could be promoted as part of a two-week Outback Festival that could incorporate sponsored camel treks, endurance horse rides and a car rally, as well as a series of staggered special events taking in historical themes in centres like Blackall, Barcaldine, Longreach and Winton. The promotional literature should be distributed at least a year in advance. There is a need for catchy slogans, such as 'Come Home to the Outback', 'Keep the Real Australia Alive'. The first Outback Festival would have to be carefully planned to ensure that it is an outstanding success. Media coverage will be free and make the staging of subsequent events easier.

- (13) Some Future Search Follow-up Workshops have already been conducted. RAPDB should conduct a review of achievements by each Shire over the twelve month period since the original Future Search Workshops were held. Successes should be publicised. Achieving a few 'wins' will help sustain community confidence and commitment.

#### 4.8 CENTRAL HIGHLANDS: A MORE DIVERSIFIED ECONOMIC BASE

The more diversified economic base of the Central Highlands Area, its closer proximity to the coast and its better developed infrastructure is reflected in the wider range of future development prospects emerging from the Future Search Workshops.

Unlike the Central West's reliance on two basic commodities, wool and beef, the Central Highlands has grass and lot-fed beef, coal, grain, cotton and horticulture, as well as an extensive electrified rail network for coal haulage to the coast, including an electrified passenger service from Emerald to Rockhampton.

Figure 2.4 shows that whilst the Central Highlands has a more diversified commodity base than the Central West, coal dominates, with 73.6% of the sub-region's total value of commodity production. Cattle (14.1%), grain (8.7%) and cotton (3.2%) provide a limited range of value-adding opportunities.

However, the heavy reliance on coal mining, at present the foremost 'engine of growth' industry in Central Queensland, presents its own unique problems in the longer term.

#### 4.9 CENTRAL HIGHLANDS: FUTURE SEARCH WORKSHOPS

Future Search Workshops were held in the Jericho, Emerald, Peak Downs, Bauhinia and Duaringa Shires. The objective was to explore, through group participation, a vision for the future developmental direction of the various Shires. Participants were required to separate into groups, and (with the aid of a facilitator) identify and then vote on projects which they would like to see developed in their particular Shire.

The consultative process provided a broad community viewpoint on what new businesses and industries were considered to be both possible and essential for the development of the various Shires. It also indirectly identified what participants considered to be the strengths and drawbacks of the respective Shires.

The initiatives which participants would like to see developed within their Shire have been grouped into the following categories:

- . Infrastructure and services
- . Tourism
- . Agriculture
- . Food and fibre processing
- . Mining
- . Mineral processing
- . Value-adding
- . Human resource development
- . Natural resource development
- . Community development
- . Energy production

#### 4.10 CENTRAL HIGHLANDS: OPPORTUNITY HORIZONS

Although coal is the dominant commodity in terms of value of production and export earnings, the industry is not a big employer, being capital-intensive by nature. However, the industry generates a significant amount of employment in coal production transport and cargo handling activities. Beef production, the second ranking economic activity of the sub-region, is not labour-intensive either, as processing takes place outside the sub-region.

Table 4.3 shows the 'Opportunity Priority Rankings' provided by participants.

Grain production, the third most important economic activity, is also capital-intensive, as value-adding industries have not yet developed in the sub-region.

Given the strength of the beef and grain industries, there are opportunities for expansion of grain-fed beef production.

Cotton production relies on irrigation from the Fairbairn Dam; there are two cotton gins in the Emerald Area. The industry has excellent growth potential.

Being export oriented, the economy of the Central Highlands Sub-Region is very susceptible to fluctuations in international commodity prices and exchange rates.

There is a need to diversity the economic base of the Region, and a decided preference for building downstream processing activities on natural resource endowment and the traditional commodity base.

Further development of the gemfields and an extension of horticulture, provided adequate water is available, are viewed as potential job-creating opportunities.

Tourism is also perceived as a valuable growth industry.

TABLE 4.3 - CENTRAL HIGHLANDS: OPPORTUNITY PRIORITY RANKINGS

BAUHNIA	DURINGA	EMERALD	JERICHO	PEAK DOWNS
Industry development (Rural value-adding)	Industry development (Rural value-adding)	Provision of additional education facilities	Rural value-adding industry development	Water resource supply/ management
Water resource supply/ management	<ul style="list-style-type: none"> <li>Retaining youth in area</li> <li>Tourism promotion/ development</li> </ul>	Secondary industry development	Primary industry development	Providing for needs of youth - better recreation/ entertainment facilities
Tourism promotion/ development	Road improvement	Primary industry development	Meat processing	Industrial development particularly small operations
Infrastructure development (Roads/Transport)		Community development	Government infrastructure improvement	Infrastructure improvement
Community development		Arts and cultural development	Tourism promotion/ development	Small business/ commercial development
Resource protection		Tourism promotion/ development	Provision of technical education and community development	Tourism promotion/ development

Above all else, providing job opportunities through establishing more value-adding activities within the sub-region is rated as a means of retaining population and providing a more stable and diversified economic base.

There is a belief that the Central Highlands can supply many of the victualling needs of the mines, the bulk of which are presently supplied from outside the sub-region.

Water supply is a common constraint on the economic development of the various Shires and there is a general belief that road improvements are necessary if the sub-region is to make progress with tourism industry development.

There is a strong feeling of self-reliance across the sub-region and a keen desire to assist government in identifying what are the more critical development needs of the sub-region.

Table 4.4 provides a listing of 'Potential Projects and Initiatives'.

#### 4.11 CENTRAL HIGHLANDS: SOME STRATEGIC POLICY GUIDELINES

There are some clear policy guidelines that have emerged from the Central Highlands Future Search Workshop exercise. These should be of interest to the CHPDO, DBIRD and other government departments. Recommendations in the Final Study Report relevant to the Central Highlands will be drawn from these 'policy pointers' and supplemented by inputs from the Consultative Committee Workshop. Due to similarities between the Central Highlands and Central West Regions, there are similarities between these 'policy pointers,' which include:

- (1) Investigate the economic feasibility of establishing a cattle meat processing plant in the Central Highlands.
- (2) Explore the economic feasibility of establishing a dairying industry in the Fairbairn Dam irrigation zone near Emerald.
- (3) A need to consider meat processing plant location in conjunction with the expressed desire for similar value-adding activity by Central West Shires. Obviously, every Shire cannot support an abattoir. However, it may be difficult to convince remote Central West Shires that they can benefit from having their meat processed in the Central Highlands rather than on the coast. Effective networking between CHPDO and RAPDB is essential on these potentially sensitive issues where DBIRD has to be accepted as the objective judge.



TABLE 4.4 - CENTRAL HIGHLANDS FUTURE SEARCH WORKSHOPS: POTENTIAL PROJECTS AND INITIATIVES

INDUSTRY	JERICO	EMERALD	PEAK DOWNS	BAUHINIA	DUARINGA
Tourism	Finding ways for competing and improving community involvement in promoting tourism in Shire	Promotion of the region for tourism, farm holidays, the real Australia	Promote high quality restaurant, promotion of tourism, mine tours	Promotion of guided tours, promote tourism and development of region	Developing road side parks, promote the unique Blackdown Tablelands
Infrastructure & Development	Identify problems and find solutions in relation to proposed abattoir, integration of road and rail services, flood control	Identify available land and services for promotion of industry, provide for increased demands of Fairbairn Dam	Upgrade roads, construct dams in open-cut areas	Improve mail services, better roads	Improve roads to tourist attractions, upgrade Bedford Weir
Natural Resource Development	Develop native timber industry	Extend irrigation area, better use/management of water resources	Provide continuous and ample water supply, store and conserve water	Develop native timber industry	Better conservation and management of water resources
Education and Training	Arts and crafts and tourism education	Promote education facilities in Emerald region, build up service base	Increase education facilities	Training for hospitality industry	Access to basic business training
Community Development	Develop a unified theme for Shire	Establish cultural complex, establish mining museum, improve medical facilities	Development of youth centre, form a youth access centre	Restore old home as museum, beautify the area	Develop Bedford Weir, showground and aged care facilities
Mining	Stake in mining industry	Increase sapphire production and add-value	Not raised by group, present level of mining activity high	Identify possibility of investment, explore bentonite processing	A major source of income, encourage further developments
Manufacturing and Industrial Development	Inducing local investment and utilising existing human & natural resources, wood chip/paper pulp	More cotton gins, a meatworks, dairy product processing, wine production	Wood pulp industry	Identify possibility of investment in wood pulp industry, bentonite	Establishment of heavy engineering works in Blackwater, operate milling lathe
Agriculture	Horticulture, native flora industry, timber	Expansion of horticulture, (citrus, grapes), dairy industry in irrigation area	Timber, improved pasture	Timber	Aquaculture, Bedford Weir
Food and Fibre	Export wood pulp, export vegetables	Process meat, cotton, grain	Establish stock feed mill, ie. stockfeed factory	Process timber	Open cafe

- (4) There are clear advantages to be gained by adopting a collective approach towards the transport problems of the Region, in particular, exploring the scope for negotiating cheaper freight rates and low backloading rates and the provision of specialist freight storage/forwarding services. This may be particularly relevant if, say, the Central West gains a kangaroo meat processing plant and the Central Highlands one or more beef abattoirs. Better synchronisation of east/west and west/east freight movements could advantage operations in both sub-regions.
- (5) Tourism networking and market segmentation needs to be raised to a higher level and the attractions of the sub-region identified, packaged and targetted.

The Outback and historic themes identified for the Central West carry over to the Central Highlands, so there should be opportunities for establishing mutually advantageous linkages.

Gemfest and Gemfields tourism in general could benefit from marketing in the four-wheel drive magazine and promotion to backpackers. Local tourism industry operators may be able to club together to provide courtesy return minibus transport between Rockhampton and Emerald to entice backpackers to divert from the north/south, south/north itineraries and spend a couple of days 'trying their luck' on the gemfields and enjoying the recreational facilities of Fairbairn Dam.

The resources needed to design and mount an effective tourism promotion strategy are beyond the means of CHPDO, but may be achievable with collaborative backing from local tourism/gemfield operators.

- (6) With infrastructure improvement provision, the areas of greatest need have been identified by individual Workshops. It is now necessary to prioritise these for the Central Highlands Sub-Region as a whole and to consult closely with Transport Queensland, as well as other government departments with a stake in improving access/egress.
- (7) Water supply, including storage and catchment management, needs to be addressed in the larger total government forum. It is vital that an integrated water resource supply/management plan be developed and implemented to ensure that shortages of this vital resource do not retard the development effort. It is necessary not only to support accelerated industrial development and diversification and consequent population growth, but also assists in widening the range of tourist attractions and improving the recreational diversity and quality of life of the resident population.
- (8) Ensuring that follow-up Future Search Workshops take place and reviewing progress with initiatives that arose out of the original Workshops should be the responsibility of the CHPDO. The progress reviews will identify positive achievements to date and will sustain interest in and commitment to

the idea of community-driven development and establishing proactive networks and working partnerships with government at all levels.

Details of the 'Opportunity Priority Rankings' and 'Potential Projects and Initiatives' by Shire from which these 'policy pointers' were taken are provided by Tables 4.3 and 4.4 respectively.

These 'Policy Pointers', combined with others generated at the Consultative Committee Workshop, will form the basis of the outline for an economic development strategy for the Central Highlands, presented in Section 7, and recommendations put forward in this Study Report that are relevant to the Central Highlands Sub-Region in Section 8.

#### **4.12 CENTRAL WEST AND CENTRAL HIGHLANDS: CQ REGIONAL CONTEXT**

The Central West and the Central Highlands are integral parts of the CQ Region as defined. The coastal centres of Rockhampton, Mackay and Gladstone have developed through economic interchange with these two sub-regions. They have handled the commodity flows from the Central West and Central Highlands - wool and beef from the Central West, and beef, grain and, more recently, coal from the Central Highlands - and Rockhampton has developed as a service centre for the Central Highlands and the more remote Central West.

Despite the fact that the commodity bases of both sub-regions are fairly narrow and their value-adding contribution is relatively insignificant at present, these sub-regions provide diversity and depth to the broader CQ Region.

#### **4.13 THE 'NEEDS AND OPPORTUNITIES' ATTITUDINAL SURVEY: BACKGROUND**

The remainder of this Section summarises the findings of the 'Needs and Opportunities' Attitudinal Survey, which covered the entire CQ Region as defined.

Being population based, the Survey did not have large samples from the Central West or the Central Highlands. In addition, the response rate for these two sub-regions was well below that for the coastal sub-regions based on Mackay, Rockhampton and Gladstone.

As part of the consultative/information gathering process involved in the CQ Red Strategy Study, a Needs and Opportunities Attitudinal Survey was conducted in

June/July 1992 to canvass the views of a representative sample of CQ residents in relation to the perceived strengths and drawbacks of the CQ Region, and to put forward some broad parameters upon which to develop a future economic development strategy for the Region.

Questionnaires were distributed to a cross-section of CQ residents throughout the five sub-regions or economic zones that comprise the CQ Region, viz the Rockhampton Area, the Gladstone Area, the Mackay Area, the Central Highlands and the Central West.

Respondents were asked to indicate what they understood to be the most important assets of the Region, the most significant impediments to growth and the industries which, in their view, offer the greatest opportunities for the future development of Central Queensland. They were also invited to identify what changes or improvements are required to remove the barriers to economic expansion, and what new business/industrial opportunities and value-adding/export opportunities exist in the Region. Finally, participants were asked to indicate, in fairly broad terms, what direction the future development of Central Queensland should follow.

Responses to the individual questions fall within the following ten main categories:

- . Minerals and energy
- . Energy
- . Crops and livestock
- . Mineral processing
- . Food and fibre processing
- . Infrastructure and services
- . Value-adding
- . Natural resources
- . Human resources
- . Regional planning

A number of other categories were also identified.

Survey responses from all five sub-regions were consolidated and an overall summary of the Survey's findings developed for the CQ Region as a whole and presented in Background Report No. 3 (BR.3).

#### 4.14 'NEEDS AND OPPORTUNITY' SURVEY: SUMMARY OF FINDINGS

It is necessary to consult BR.3 for details of the findings of this Survey; only the main findings and the relevant supporting data referred to in the Survey Report's Executive Summary are reproduced here.

Survey responses confirmed that minerals, including coal, constitute Central Queensland's most important asset, with crops and livestock (agriculture) ranked second (Table 4.5).

The isolation of the Region from domestic and overseas markets, as well as from major cities within Australia, was considered the main impediment to economic development, with high costs, including transport costs, a close second (Table 4.6).

The mining industry was clearly ranked as the CQ industry with the best development opportunities. Crops and livestock was ranked second (Table 4.7).

The two areas singled out as demanding change or improvement in order for satisfactory rates of economic development to be attained were improved transport infrastructure and the adoption of a systematic and integrated approach to regional economic development (Table 4.8).

New business/industrial opportunities were thought most likely to occur in the area of food and fibre processing (value-adding), which ranked clearly ahead of mineral processing, the next contender (Table 4.9).

In general, it was agreed that committed involvement in value-adding to Central Queensland's main commodity items was the direction to follow, while heavier emphasis on tourism development and promotion was considered to be a sound back-up regional economic development activity (Table 4.10).

#### 4.15 'NEEDS AND OPPORTUNITIES' ATTITUDINAL SURVEY: POLICY IMPLICATIONS

The following regional economic development policy implications can be drawn from this Region-wide Attitudinal Survey:

- (1) Central Queensland's mineral resource base offers the greatest economic growth and development potential, with further downline mineral processing capable of providing additional value-adding and job opportunities.
- (2) Transport costs are a major impediment to the economic development of the CQ Region. It is necessary to investigate ways of improving the entire range of transport-related activities, including storage, freight forwarding and packaging and making more efficient use of the existing system. This would require a major Study. Transportation hubs should be developed and freight rates negotiated on a regional basis.
- (3) The perceived need for improved roads in particular areas led to needed improvements in road infrastructure emerging as an important consideration.

TABLE 4.5: Central Queensland's Most Important Assets																	
Category	Sub-Category	Rockhampton		Gladstone		Mackay		Central Highlands		Central West		Total CQ					
		Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	CQ Score	%				
1. Minerals																	
	General	56	34	55	33	20	12	28	17	6	4	165	100				
	Coal	32	26	45	37	25	20	18	15	2	2	122	100				
	Gems	-	-	-	-	-	-	6	67	3	33	9	100				
	TOTAL	88	30	100	34	45	15	52	18	11	4	296	100				
2. Crops and Livestock																	
	General	20	50	9	23	3	8	6	15	2	5	40	100				
	Beef	11	23	8	17	11	23	10	21	7	15	47	100				
	Grain	-	-	-	-	16	53	14	47	-	-	30	100				
	Wool	-	-	-	-	-	-	-	-	16	100	16	100				
	Horticulture	6	40	6	40	-	-	3	20	-	-	15	100				
	Sugar	-	-	-	-	10	100	-	-	-	-	10	100				
	Cotton	-	-	-	-	-	-	6	100	-	-	6	100				
	TOTAL	37	23	23	14	40	24	39	24	25	15	164	100				
3. Transport Infrastructure																	
	General	3	16	3	16	4	21	3	16	6	32	19	100				
	Transport	10	25	6	15	6	15	10	25	8	20	40	100				
	Deep Water Port	11	37	16	53	-	-	-	-	3	10	30	100				
	TOTAL	25	28	25	28	10	11	13	15	17	19	89	100				
4. Natural Resources																	
	General	3	27	5	45	-	-	3	27	-	-	11	100				
	Water	11	35	-	-	6	19	8	26	6	19	31	100				
	Soil Fertility	-	-	5	18	15	54	5	18	3	11	28	100				
	Climate	3	33	-	-	3	33	3	33	-	-	9	100				
	TOTAL	17	22	10	13	24	30	19	24	9	11	79	100				
5. Human Resources																	
	TOTAL	26	43	13	21	12	20	7	11	3	5	61	100				
6. Tourism																	
	TOTAL	17	45	5	13	9	24	2	5	5	13	38	100				
7. Other VIZ																	
	Energy	-	-	6	67	3	33	-	-	-	-	9	100				
	Positive Outlook	7	100	-	-	-	-	-	-	-	-	7	100				
	Lifestyle	-	-	-	-	-	-	6	67	3	33	9	100				
	TOTAL	7	28	6	24	3	12	6	24	3	12	25	100				

TABLE 4.6: Significant Impediments To The Economic Development of the CQ Region														
Category	Sub-Category	Rockhampton			Gladstone		Mackay		Central Highlands		Central West		Total CQ	
		Score	% Sub-Category Response		Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	CQ Score	%
1. Isolation														
	Distance - Domestic Markets	15	37	3	7	3	7	8	20	12	29	41	100	
	Distance - Foreign Markets	14	41	6	18	5	15	3	9	6	18	34	100	
	Distance - Major Centres	12	35	4	-	6	18	5	15	7	21	34	100	
	TOTAL	41	38	13	12	14	13	16	15	25	23	109	100	
2. High Costs														
	General	27	46	8	14	6	10	10	17	8	14	59	100	
	Transport	3	10	3	10	11	35	7	23	7	23	31	100	
	Taxes and Charges	-	-	7	-	-	-	-	-	-	-	7	100	
	TOTAL	30	31	18	19	17	18	17	18	15	15	97	100	
3. Poor Planning and Promotion														
	TOTAL	34	53	10	16	11	16	6	9	4	6	64	100	
4. Inadequate Infrastructure/Services														
	General	-	-	-	-	-	-	3	20	12	80	15	100	
	Road Transport	3	12	-	-	8	32	8	32	6	24	25	100	
	Rail Transport	-	-	-	-	3	50	3	50	-	-	6	100	
	Container Port Facilities	6	40	4	27	5	33	-	-	-	-	15	100	
	Air Transport	-	-	-	-	-	-	3	100	-	-	3	100	
	TOTAL	9	14	4	6	16	25	17	27	18	28	64	100	
5. Lack of Water														
	TOTAL	14	22	-	-	32	50	10	16	8	13	64	100	
6. Lack of Proper Finance Management														
	TOTAL	9	21	11	26	11	26	5	12	7	15	43	100	
7. Lack of Government Incentives														
	TOTAL	3	15	-	-	8	40	3	15	6	30	20	100	
8. Anti-Progress Attitude (Parochial Mindsets)														
	TOTAL	9	50	3	17	-	-	3	17	3	17	18	100	

TABLE 4.7: CQ Industries With The Greatest Development Opportunities													
Category	Sub-Category	Rockhampton Score	% Sub- Category Response	Gladstone Score	% Sub- Category Response	Mackay Score	% Sub- Category Response	Central Highlands Score	% Sub- Category Response	Central Score	West % Sub- Category Response	CQ Score	Total CQ %
1. Mining													
	General	88	53	46	28	21	13	9	5	3	2	167	100
	Coal	14	17	10	12	40	49	17	21	-	-	81	100
	Gemstones	-	-	-	-	-	-	3	50	3	50	6	100
	TOTAL	102	40	56	22	61	24	29	11	6	2	254	100
2. Crops and Livestock													
	General	25	50	4	8	11	22	7	14	3	6	50	100
	Beef	11	26	-	-	15	36	11	26	5	12	42	100
	Grain	-	-	-	-	16	62	10	-	-	-	26	100
	Horticulture	13	50	-	-	3	12	7	27	3	12	26	100
	Sugar	-	-	-	-	16	100	-	-	-	-	16	100
	Wool	-	-	-	-	-	-	-	-	10	100	10	100
	Cotton	-	-	-	-	-	-	3	100	-	-	3	100
	TOTAL	49	28	4	2	61	35	38	22	21	12	173	100
3. Tourism													
	TOTAL	29	40	5	7	18	25	11	15	9	13	72	100
4. Value-Adding													
	General	18	100	-	-	-	-	-	-	-	-	18	100
	Industrial Development	18	72	5	20	-	-	-	-	2	8	25	100
	Light Engineering	9	50	9	50	-	-	-	-	-	-	18	100
	TOTAL	45	74	14	23	-	-	-	-	2	3	61	100
5. Energy													
	General	-	-	-	-	-	-	3	100	-	-	3	100
	Coal	3	12	5	20	8	32	6	24	3	12	25	100
	Methane Gas	-	-	-	-	3	100	-	-	-	-	3	100
	TOTAL	3	10	5	16	11	35	9	29	3	10	31	100
6. Port Development													
	TOTAL	3	43	4	57	-	-	-	-	-	-	7	100



TABLE 4.8: Changes or Improvements Required to Facilitate the Economic Development of CQ													
Category	Sub-Category	Rockhampton Score	% Sub- Category Response	Gladstone Score	% Sub- Category Response	Mackay Score	% Sub- Category Response	Central Highlands Score	% Sub- Category Response	Central Score	% Sub- Category Response	CQ Score	Total CQ %
1. Improve Infrastructure													
	General	6	11	5	9	11	20	24	44	9	16	55	100
	Road	-	-	-	-	13	37	17	49	5	14	35	100
	Container Port	3	9	10	31	13	41	6	19	-	-	32	100
	Rail	-	-	-	-	13	54	9	38	2	8	24	
	Air	3	16	-	-	7	37	9	47			19	
	TOTAL	12	7	15	9	57	35	65	39	16	10	165	100
2. Regional Economic Development & Planning													
	General	34	85	-	-	-	-	6	15	-	-	40	100
	Unified Approach	45	79	7	12	-	-	5	9	-	-	57	100
	Form CQ Regional Development Body	25	100	-	-	-	-	-	-	-	-	25	100
	Greater Community Involvement	7	50	7	50	-	-	-	-	-	-	14	100
	TOTAL	111	82	14	10	-	-	11	8	-	-	136	100
3. Provide Greater Incentives													
	General	13	30	14	32	7	16	4	9	6	14	44	100
	Reduce Taxes & Charges	9	22	-	-	5	12	12	29	15	37	41	100
	Facilitate Export Activities	10	38	8	31	3	12	3	12	2	8	26	100
	TOTAL	32	29	22	20	15	14	19	17	23	21	111	100
4. Promotion of The Region													
	General	30	71	-	-	7	17	5	12	-	-	42	100
	Promote Value-Adding Industries	8	73	-	-	-	-	-	-	3	27	11	100
	Market Investment Opportunities	-	-	-	-	-	-	4	57	3	43	7	100
	TOTAL	38	63	-	-	7	-	9	15	6	10	60	100
5. Attitudinal Change													
	Break Down Parochialism	29	73	11	28	-	-	-	-	-	-	40	100
	Create Export Culture	5	28	8	44	5	28	-	-	-	-	18	100
	TOTAL	34	59	19	33	5	9	-	-	-	-	58	100
3. Water Resource Development/Management													
	TOTAL	9	17	-	-	35	67	5	10	3	6	52	100

TABLE 4.9: New Business/Industrial Opportunities in the CQ Region													
Category	Sub-Category	Rockhampton Score	% Sub- Category Response	Gladstone Score	% Sub- Category Response	Mackay Score	% Sub- Category Response	Central Highlands Score	% Sub- Category Response	Central West Score	% Sub- Category Response	Total CQ Score	%
1. Food and Fibre Processing (Value-Adding)													
	General	34	47	16	22	11	15	5	7	6	8	72	100
	Sugar	-	-	-	-	38	100	-	-	-	-	38	100
	Meat	10	29	-	-	13	37	6	17	6	17	35	100
	Skins (Tannery)	8	73	-	-	-	-	-	-	3	27	11	100
	Grain	7	70	-	-	-	-	3	30	-	-	10	100
	Textile & Clothing	-	-	-	-	-	-	-	-	5	100	5	100
	Wood Pulp Mill	-	-	-	-	4	100	-	-	-	-	4	100
	TOTAL	59	34	16	9	66	38	14	8	20	11	175	100
2. Mineral Processing													
	General	47	49	26	27	-	-	19	20	3	3	95	100
	Coal Value-Adding	-	-	-	-	-	-	3	100	-	-	3	100
	TOTAL	47	48	26	27	-	-	22	22	3	3	98	100
3. Tourism													
	TOTAL	34	49	13	19	15	21	5	7	3	4	70	100
4. Energy													
	General	-	-	-	-	5	100	-	-	-	-	5	100
	Gas (incl Methane)	-	-	5	19	11	42	10	38	-	-	26	100
	Ethanol (Sugar By-Product)	-	-	-	-	7	100	-	-	-	-	7	100
	TOTAL	-	-	5	13	23	61	10	26	-	-	38	100

TABLE 4.10: New CQ Value-Adding/Export Opportunities													
Category	Sub-Category	Rockhampton		Gladstone		Mackay		Central Highlands		Central West		Total CQ	
		Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	Score	% Sub-Category Response	CQ Score	%
1. Food and Fibre Processing	General	-	-	-	-	-	-	2	100	-	-	2	100
	Meat	22	36	7	11	7	11	12	20	13	21	61	100
	Fruit	22	52	4	10	16	38	-	-	-	-	42	100
	Grain	12	32	6	16	4	11	16	42	-	-	38	100
	Sugar	-	-	-	-	32	100	-	-	-	-	32	100
	Vegetables	10	36	4	14	14	50	-	-	-	-	28	100
	Skins (Tannery)	11	58	-	-	8	42	-	-	-	-	19	100
	Wool	-	-	-	-	7	41	-	-	10	59	17	100
	Cotton	14	93	-	-	-	-	-	-	1	7	15	100
	Seafood	12	100	-	-	-	-	-	-	-	-	12	100
Kangaroo & Feral Animals		-	-	-	-	-	-	-	-	4	100	4	100
	Aquaculture	-	-	-	-	-	-	4	100	-	-	4	100
	Wine	-	-	-	-	-	-	3	100	-	-	3	100
	TOTAL	103	59	21	12	88		37	21	28	16	175	100
2. Mineral Processing	General	56	60	32	34	-		3	3	3	3	94	100
	Aluminium Extrusion	-	-	7	100	-		-	-	-	-	7	100
	Steel Manufacturing	-	-	5	100	-		-	-	-	-	5	100
	Gems	-	-	-	-	-		-	-	3	100	3	100
	TOTAL	56	51	44	40	0		3	3	6	6	109	100
3. Energy (Coke Processing)													
	TOTAL	18	40	10	22	11	24	6	13	-		45	100
4. Chemicals													
	TOTAL	-	-	18	86	-		3	14	-	-	21	100
5. Tourism													
	TOTAL	14	88	-	-	-		2	13	-	-	16	100

- (4) The development of a container terminal at Gladstone was viewed as an essential ingredient for establishing a more cost effective transport network.
- (5) The regional economic development process needs to be handled in a systematic and integrated manner with much better consultative arrangements developed between Regional Development Organisations and regional offices of State Government departments. Important information is not made readily accessible to RDOs.
- (6) Food (beef, mutton, kangaroo, grain, sugar, dairy products, fish, fruit) and fibre (wool, cotton, bagasse) were viewed as the greatest sources of new value-adding initiatives (ahead of minerals). Identifying the best opportunities will require joint research and cooperation between growers through industry representative bodies (QDPI and DBIRD).
- (7) Whilst some CQ food products already have established export outlets, others, due to their smallness relative to the beef, grain and wool industries, or their lack of historical significance or less effective lobbying techniques, have not been able to establish reliable export outlets. There is a clear need for export education and facilitation. This identifies a clear role for an organisation such as the widely supported UCQ-sponsored IBECQ.
- (8) Further tourism development and better packaging and promotion of the Region as an economical and attractive venue were viewed as productive ways of providing job opportunities and attracting more expenditure to the Region.

## **SECTION 5**

### **NARROWING THE FOCUS: KEY STAKEHOLDER PERSPECTIVE**

## **5.0 NARROWING THE FOCUS: KEY STAKEHOLDER PERSPECTIVE**

### **5.1 INTRODUCTION**

The information summarised in this Section of the Study Report derives from two separate sources:

1. a Private Sector Stakeholder Interview-based Survey, the findings of which are presented in detail in Background Report No. 4 (BR.4); and
2. a Public Sector (Regional Managers - CQ) Interview-based Survey, whose findings are documented in detail in Background Report No. 5 (BR.5).

The regional economic development insights gleaned from this key stakeholder consultation are considered to be extremely valuable, being well-informed and based on 'hands on' experience.

The main findings of each of these two consultative phases of the Study are presented in the Executive Summaries of the relevant Background Reports.

Here, each Survey's findings are discussed separately, but some comparisons between the findings on like issues are drawn. The aim is to narrow the focus of these attitudinal inputs with a view to combining the disparate strands to provide an outline of an overall CQ economic development strategy.

However, the relevant Background Reports should be consulted for more detail on the outcomes.

## **5.2 PRIVATE SECTOR STAKEHOLDER SURVEY (BR.4)**

### **5.2.1 INTRODUCTION**

The Private Sector Stakeholder Survey was designed to elicit strategic information and direction from executives of manufacturers' and private business organisations, individual entrepreneurs and a range of private sector professionals on issues relating to the future economic development of the CQ Region.

This in-depth interview-based Survey formed part of the extended Study Brief agreed by the Study's Management Committee on the recommendation of the Project Manager. Its purpose was to deepen the consultative process and provide clearer direction on specific issues that had arisen from a preliminary analysis of responses to the Needs and Opportunities (Attitudinal) Survey (BR.3).

### 5.2.2 SURVEY DESIGN AND METHODOLOGY

It was decided that the strategic information required would be most effectively collected by means of an in-depth interview-based Survey. The relevant RDOs/Managers from the five sub-regions were requested to provide lists of key players from a cross-section of business people and community leaders operating in their areas which could include individuals as well as CEOs of private sector organisations. Additional respondents were selected by the Project Manager on a discretionary basis, the main criterion for selection being possession of a high regional profile and known to possess a definite 'bias for action'.

Experienced interviewers underwent a thorough in-house briefing on the nature and purpose of the Study and the role of this consultative phase within the overall Study design. A discursive approach was suggested for conducting in-depth interviews, which were expected to take about one hour to complete.

The interviews were to be structured around what was essentially an attitudinal questionnaire containing eighteen questions. (See Appendix BR.4)

With the exception of the Mackay Sub-Region, interviews were arranged at least one week in advance.

Copies of the questionnaire were mailed to the Central West and Central Highlands RDOs/Managers, who distributed them to board members, who were requested to fill them out as self-administered questionnaires and return them in the postage pre-paid envelopes supplied.

Interviews were briefed to elicit information and viewpoints on matters relating to the economic development of the CQ Region other than those canvassed in the questionnaires.

Each interviewer was de-briefed after completion of the assigned quota of interviews. Respondents were assured confidentiality. Only one potential respondent declined to cooperate.

In all, 79 interviews were conducted. These were distributed across the sub-regions as follows: Rockhampton (35); Gladstone (24); Mackay (20). Of the questionnaires mailed to the relevant RDOs in the Central Highlands and the Central West Sub-Regions, seven from the Central Highlands and four from the Central West were returned. This yielded a total of 90 responses.

The findings of the Survey, which related to the CQ Region as a whole, are arranged in the same order as the questionnaire. Voluntary qualitative information and viewpoints offered on issues other than those canvassed in the questionnaire, that is, outside the structured section of the interview, are summarised towards the end of this Report. Some of this unsolicited information is regarded to be very

valuable, being given the guarantee of confidentiality, or, more correctly, anonymity.

### 5.2.3 SUMMARY OF FINDINGS

A majority of respondents, 53 out of 90, or 59%, of respondents, took the view that the Mackay/Whitsunday Area should be considered an integral part of the CQ Region for economic development purposes. The predominant reason given in support of this amalgamation was the existence of common interests in coal mining, beef and tourism (Table 5.1).

**TABLE 5.1**

For Regional Economic Development purposes, should the Mackay/Whitsunday area be considered as part of the Central Queensland Region? (Question 2)

	<b>Yes</b>	<b>No</b>
Rockhampton	21	14
Gladstone	12	12
Mackay/Whitsunday	13	7
Central Highlands & Central West	7	4
	<hr/>	<hr/>
<b>TOTAL</b>	<b>53</b>	<b>37</b>
<b>TOTAL (%)</b>	<b>59%</b>	<b>31%</b>
	<hr/>	<hr/>

On the question as to whether the Bundaberg Sub-Region should be considered an integral part of the CQ Region for economic development purposes, a slight majority, 47 out of 90, or 52%, of respondents, were in favour.

However, as the Bundaberg Sub-Region was not part of the Study's target area, the above result understates the level of support that exists for the Bundaberg Sub-Region to be considered an integral part of the CQ Region. Information supplied by Bundaberg and District Tourism and Development Ltd would suggest that the Bundaberg Sub-Region strongly favours forming a closer alliance with the CQ Region as defined for this Study for tourism promotion as well as economic development purposes (Table 5.2).



**TABLE 5.2**

For Regional Economic Development purposes, should the Bundaberg area be considered as part of the Central Queensland Region? (Question 3)

	<b>Yes</b>	<b>No</b>
Rockhampton	13	22
Gladstone	20	4
Mackay/Whitsunday	8	12
Central Highlands & Central West	6	5
	<hr/>	<hr/>
<b>TOTAL</b>	47	43
<b>TOTAL (%)</b>	52%	48%

The vast majority of respondents, 73 out of 90 or 81%, favoured developing stronger industrial and commercial linkages between Gladstone and Rockhampton, and the adoption of a common industrial/commercial development strategy. The complementarity between the two cities was stressed (Table 5.3).

**TABLE 5.3**

Should greater commercial/industrial linkage be developed between Gladstone and Rockhampton? (Question 4)

	<b>Yes</b>	<b>No</b>
Rockhampton	26	9
Gladstone	22	2
Mackay/Whitsunday	16	4
Central Highlands & Central West	9	2
	<hr/>	<hr/>
<b>TOTAL</b>	73	17
<b>TOTAL (%)</b>	81%	19%

There was overwhelming support for an extension of rail electrification from Rockhampton to Mackay, with 85 out of 90, or 94%, in favour. Not only would this provide Mackay with an efficient freight link with Gladstone, particularly when Gladstone has a container terminal, but the link would promote tourism and assist in the unification of the CQ Region (Table 5.4).

**TABLE 5.4**

Should rail electrification be extended from Rockhampton to Mackay? (Question 5)

	Yes	No
Rockhampton	35	-
Gladstone	21	3
Mackay/Whitsunday	19	1
Central Highlands & Central West	10	1
	<hr/>	<hr/>
TOTAL	85	5
TOTAL (%)	94%	6%

A total of 58 out of 90 or 64% of respondents expressed the view that Central Queensland should have an umbrella Regional Development Organisation that could authoritatively represent the Region as a whole. There was a clear indication that what was required was not a new layer of bureaucracy, but an organisation comprised of the RDOs of present Regional Development Organisations although, significantly, armed with clear and effective consultative arrangements with key regional government agencies (Table 5.5).

A total of 79 out of 90, or 88%, of respondents held the view that the CQ Region was on the verge of unprecedented growth and that the coal and mineral processing industries would provide the necessary catalysts (Table 5.6).

On the question of the availability of adequate reasonably priced housing in their respective areas to support the current rate of economic growth, 44 out of 90, or 49%, of respondents considered that the available accommodation was adequate and reasonably priced, while a slight majority of 51% took the opposite view. As the question was pitched at the respondent's own 'area', there was considerable variation in responses between sub-regions (Table 5.7).

**TABLE 5.5**

Should a Regional Development Authority be set up to be responsible for looking after the development needs of the Central Queensland Region? (Question 6)

	<b>Yes</b>	<b>No</b>
Rockhampton	28	7
Gladstone	10	14
Mackay/Whitsunday	15	5
Central Highlands & Central West	5	6
	<hr/>	<hr/>
<b>TOTAL</b>	58	32
<b>TOTAL (%)</b>	64%	26%

**TABLE 5.6**

Is the Central Queensland Region poised to enter a period of sustained economic growth and development? (Question 7)

	<b>Yes</b>	<b>No</b>
Rockhampton	34	1
Gladstone	23	1
Mackay/Whitsunday	15	5
Central Highlands & Central West	7	4
	<hr/>	<hr/>
<b>TOTAL</b>	79	11
<b>TOTAL (%)</b>	88%	12%

**TABLE 5.7**

Is there adequate reasonably priced housing in your area to provide accommodation for additional families as the workforce increases with increased economic development activity? (Question 8)

	<b>Yes</b>	<b>No</b>
Rockhampton	16	19
Gladstone	15	9
Mackay/Whitsunday	9	11
Central Highlands & Central West	4	7
	<hr/>	<hr/>
<b>TOTAL</b>	44	46
<b>TOTAL (%)</b>	49%	41%

A clear majority of 59 out of 90, or 66%, of respondents stated that they use the services of government departments such as DBIRD, QDPI and the Department of Transport in the normal course of their business activities. The breakdown of responses on a sub-regional basis indicates much heavier proportionate utilisation of these services by Gladstone and Mackay Sub-Regions than Rockhampton and combined Central Highlands and Central West Sub-Regions (Table 5.8).

**TABLE 5.8**

In the normal course of your business activities, do you use the services of government departments such as DBIRD, QDPI or the Department of Transport? (Question 9)

	<b>Yes</b>	<b>No</b>
Rockhampton	20	15
Gladstone	21	3
Mackay/Whitsunday	14	6
Central Highlands & Central West	4	7
	<hr/>	<hr/>
<b>TOTAL</b>	59	31
<b>TOTAL (%)</b>	66%	24%

In general, there is a high level of satisfaction with service delivery by the main government agencies, with DBIRD rated highest at 5.7, QDPI a close second at 5.6 and the Department of Transport third, with a rating of 5.1. These are good ratings on a scale where 7 is the top rating. However, DBIRD Gladstone gets the top rating of 6.2, supported by strong statements of approval and satisfaction. (Table 5.9).

**TABLE 5.9**

Please indicate how satisfactory these services are? (Scale 1 to 7) (Question 10)

	Rockhampton	Gladstone	Mackay/ Whitsunday	C/Highlands & C/West	CQ Region
DBIRD	5.3	6.2	5.0	5.5	5.7
Dept. of Transport	-	5.5	5.0	4.7	5.1
DPI	5.0	-	6.0	5.8	5.6
Other	4.8	5.1	4.3	3.7	4.5
OVERALL	4.9	5.6	4.9	4.9	5.0

There is a general perception that the CQ Region is not being well promoted, with an overall rating of only 4. There is variation in ratings between the six separate attributes canvassed. It is interesting to note how perceptions vary regarding the promotion of these different attributes, as well as how they vary between locations.

Gladstone respondents provide the highest overall ratings and Capricorn Coast (Livingstone Shire) the lowest.

Promotion of the CQ Region 'as a resource rich area' gets top overall rating at 4.4, and promotion 'as a good manufacturing location' gets lowest overall rating at 3.4, whilst promotion 'as a "go ahead" Region' is rated second lowest, at 3.9. This is a very forceful reminder that a lot of work needs to be done on the promotional area (Table 5.10).

In terms of CQ basic industrial infrastructure, electricity supply gets the top rating, with 5.4, and roads the lowest, with a rating of 4.1. The overall rating of 4.8 for CQ infrastructure *in toto* is quite high.

Gladstone respondents have the highest perceptions of the overall quality of infrastructure with a rating of 5.8, and the Central Highlands and Central West combined the lowest, at 4 (Table 5.11).

**TABLE 5.10**

How effectively is the Central Queensland Region being promoted? (Scale of 1-7)  
(Question 11)

	Rockhampton	Gladstone	Capricorn Coast	Mackay/ Whitsunday	C/Highlands & C/West	CQ Region
(a) as a resource rich area?	4.4	5.7	2.8	4.7	4.3	4.4
(b) as a good place to invest?	4.3	5.0	2.9	4.2	3.9	4.1
(c) as an attractive tourist venue?	4.2	4.6	3.3	4.6	3.6	4.1
(d) as a good place to live?	4.7	4.9	3.5	4.3	3.3	4.1
(e) as a good manufacturing location?	3.8	5.7	1.9	3.2	2.2	3.4
(f) as a 'go ahead' region?	4.2	6.0	2.4	4.4	2.6	3.9
OVERALL RATING	4.3	5.3	2.8	4.2	3.3	4.0

**TABLE 5.11**

How would you rank the following Central Queensland infrastructure? (Scale of 1-7)  
(Question 12)

	Rockhampton	Gladstone	Capricorn Coast	Mackay/ Whitsunday	C/Highlands & C/West	CQ Region
(a) roads	4.3	4.5	4.0	4.0	3.5	4.1
(b) rail	5.0	5.4	4.7	4.4	4.2	4.7
(c) seaports	5.2	6.4	4.7	4.6	4.5	5.1
(d) airports	4.8	5.7	4.3	5.5	4.0	4.9
(e) electricity supply	6.0	6.3	4.6	5.4	4.6	5.4
(f) natural gas supply	5.2	5.9	5.0	3.3	3.4	4.6
(g) water supply	4.2	6.5	5.7	2.8	3.6	4.6
OVERALL RATING	4.9	5.8	4.7	4.3	4.0	4.8

Improvement of infrastructure with 36% of total points allocated, particularly transport-related infrastructure (21%), was viewed as the most important strategic consideration to ensure the balanced and sustained growth of the CQ Region.

Natural resource development was ranked second, with 17%, and regional (including tourism) promotion third, with 11% (Table 5.12).

TABLE 5.12

From a regional economic development standpoint, in order of importance, what are the three most important strategic considerations to ensure the balanced and sustained growth of the Central Queensland Region? (Question 13)

	Points	% Total
(1) INFRASTRUCTURE		
general improvement	25	
transport upgrade	86	
housing availability	14	
excellent industrial infrastructure	14	
community infrastructure	9	
TOTAL	148	36%
(2) NATURAL RESOURCE DEVELOPMENT		
general	16	
water	36	
energy	9	
light metals	6	
coal	4	
TOTAL	71	17%
(3) PROMOTION		
general regional promotion	17	
tourism development	29	
TOTAL	46	11%
OTHER		
(4) INCENTIVES		
general	6	
industry incentives	16	
cut red tape on development	10	
employment opportunities for young people	4	
attract new employment generating industry	5	
TOTAL	41	10%
(5) ADEQUATE PLANNING		
general improvement	16	
regional alliances (political/commercial)	4	
comprehensive data base	6	
TOTAL	26	7%
(6) VALUE ADDING		
general	17	
existing resources	9	
TOTAL	26	7%
(7) GOVERNMENT		
amalgamation of local government	14	
- (Mackay and Pioneer)		
State and local cooperation	9	
TOTAL	23	5%
(8) EDUCATION	15	4%
(9) HUMAN RESOURCES		
skilled labour pool	13	3%
TOTAL POINTS	409	100

Major impediments to regional economic development cited were isolation, which largely revolves around deficiencies in transport infrastructure and high transport costs (30.5%), lack of a unified promotion of the Region (13%) and bureaucratic barriers (10%) (Table 5.13).

**TABLE 5.13**

From a regional development standpoint, in order of importance, what are the Central Queensland Region's three major drawbacks or disadvantages? (Question 14)

	Points	% Total
(1) Tyranny of Distance	158	30.5
(2) Lack of Unified Promotion and Planning	67	12.9
(3) Government	51	9.8
- red tape	(17)	
- local government needs improvement	( 9)	
- lack of representation	(25)	
(4) Lack Adequate Water	32	6.2
(5) Scarce Skilled Labour	26	5.0
(6) Problems with Support Industries (ie. quality and lack of)	23	4.5
(7) Unemployment	22	4.2
(8) Lack of Investor Confidence and Capital	21	4.0
(9) Parochialism & Lack of Initiative	35	6.7
(10) Lack of Affordable Housing	20	3.9
(11) Other (Education, Value Adding etc)	64	12.3
<b>TOTAL POINTS</b>	<b>519</b>	<b>100.0%</b>



Only 32, or 36%, of respondents were aware that this Regional Economic Development Strategy Study was being undertaken (Table 5.14)

**TABLE 5.14**

Were you aware that this Regional Economic Development Strategy Study was being undertaken? (Question 15)

	Yes	No
Rockhampton	9	26
Gladstone	15	9
Mackay/Whitsunday	5	15
Central Highlands & Central West	3	8
	<hr/>	<hr/>
TOTAL	32	58
TOTAL (%)	36%	64%

The main beneficial outcomes expected from the Study were 'heightened awareness of CQ's potential' (29%), 'identification of the Region's needs and opportunities' (18.5%) and 'providing strategic direction' (16%) (Table 5.15).

**TABLE 5.15**

Nominate two beneficial outcomes the Study should generate? (Question 15a)

	Points	%Total
(1) Heightened awareness of C.Q. Potential through information feedback.	38	21
(2) Identification of Needs and Opportunities (Realistic assessment of regions potential)	33	18.5
(3) Provide Strategic Direction (Isolate areas of planning that need attention)	29	16
(4) Make Governments aware (Attract funding - Assist Govt. to decentralise - Lobbying tool)	22	12.3
(5) Provide basis for Unified Promotion	18	9.9
Other	40	22.3
<b>TOTAL</b>	<b>180</b>	<b>100.0 %</b>

Fifty-eight respondents, or 58% of the total, were aware of the publication of the *Central Queensland Journal of Regional Development* (Table 5.16).

**TABLE 5.16**

Are you aware of the publication of the first issue of the *CQ Journal of Regional Development*? (Question 16)

	Yes	No
Rockhampton	17	18
Gladstone	17	7
Mackay/Whitsunday	10	10
Central Highlands & Central West	8	3
	<hr/>	<hr/>
TOTAL	52	38
TOTAL (%)	58%	42%

The provision of 'informed comment on CQ development', with 39.3% of the points allocated, was ranked as the Journal's most beneficial outcome.

Second rated was 'promoting what the Region has to offer' (26.8%), and third providing 'better regional cohesion' (Table 5.17).

**TABLE 5.17**

In your view, what beneficial outcomes will the quarterly publication of this Journal, which has an exclusive focus on CQ, generate? (Question 16a)

	Points	%Total
(1) Provide informed comment on C.Q. development (Lead to better informed Business/Industry, raised public awareness)	54	39.3
(2) Promote what region has to offer (Create interest in C.Q. potential - Establish regional identity - Draw attention to strengths & weaknesses)	37	26.8
(3) Better regional cohesion (More productive mutual alliances)	15	10.7
(4) Promote positive attitude	15	10.7
Other	17	12.5
<b>TOTAL</b>	<b>138</b>	<b>100.0%</b>

Thirty-five respondents, that is 39% of the total, were aware of IBECQ (Table 5.18).

**TABLE 5.18**

Are you familiar with the aims of the University-driven International Business Exchange, Central Queensland (IBECQ)? (Question 17)

	Yes	No
Rockhampton	12	23
Gladstone	16	8
Mackay/Whitsunday	3	17
Central Highlands & Central West	4	5
	<hr/>	<hr/>
TOTAL	35	53
TOTAL %	39%	59%

Highest ranked expected beneficial outcomes of IBECQ were 'promotion of CQ Region and attaining international recognition of CQ' (31.3%), 'presenting CQ at top government level' (18.8%) and bringing about 'better regional cohesion' (15%) (Table 5.19).

**TABLE 5.19**

In your view, what beneficial outcomes for the CQ Region will this initiative generate? (Question 17a)

	Points	%Total
(1) Promotion of what C.Q. Region has to offer	10	31.3
- International recognition of C.Q. (5)		
- General Promotion (4)		
- Better representation at trade delegation level (1)		
(2) Present C.Q. at top Government level	6	18.8
(3) Better Regional Cohesion	5	15.6
Other (Focus on export & value-adding, give investors facts etc.)	11	34.3
	<hr/>	<hr/>
<b>TOTAL</b>	<b>32</b>	<b>100.0%</b>

A slight majority of 46, or 51%, took the view that the CQ economy was capable of leading Australia out of the recession (Table 5.20).

**TABLE 5.20**

In your view, is the Central Queensland economy capable of leading Australia out of recession? (Question 18)

	<b>Yes</b>	<b>No</b>
Rockhampton	14	21
Gladstone	17	7
Mackay/Whitsunday	10	10
Central Highlands & Central West	5	6
	<hr/>	<hr/>
<b>TOTAL</b>	46	44
<b>TOTAL %</b>	51%	49%

As most of the issues canvassed and voluntarily raised in the course of this important consultative phase of the Study were also covered in the Public Sector Regional CEO interviews (BR.5), the policy implications arising from both Surveys will be consolidated at the end of this Section.

### **5.3 PUBLIC SECTOR REGIONAL CHIEF EXECUTIVE OFFICERS (CEO) INTERVIEW REPORT**

#### **5.3.1 INTRODUCTION**

This segment of the Study was not part of the original Study design, but was introduced as part of the extended Study Brief to provide a public sector regional perspective and to broaden and deepen the consultative process.

The procedure adopted was to arrange a series of in-depth interviews of regional CEOs of all State Government departments that have a presence in the CQ Region.

As the State Government's regionalisation program is still in the process of being 'bedded down', and corporate planning/management is still relatively new in the Queensland public sector, many of the regional CEOs interviewed were recent appointees, while many had only recently re-located to the CQ Region.

Using experienced, mature interviewers following a structured interview format was deemed to be an effective way of procuring core information and viewpoints on the regional development needs of Central Queensland, while at the same time establishing contact with key public sector players in the Region.

On average, interviews took an hour and a half. Regional managers were most cooperative, generous with their time and supplied interviewers with maps of regional boundaries, departmental planning documents and considered responses to the key questions in the core interview format.

Along with specific questions directed at public sector organisations, the same questions as those asked in the Private Sector Stakeholder Survey (by interview) were used. In all, nineteen public sector interviews were conducted.

An interesting aspect of these regional CEO interviews was the high number of non-responses to questions that did not appear to be in any way politically controversial. This contrasts with the Private Sector interviews where respondents, with one exception, answered all questions.

The findings of this series of interviews are presented in detail in Background Report No. 5 (BR.5) and the Questionnaire is in the attached Appendix.

#### **5.3.2 SUMMARY OF FINDINGS**

- \* All regional divisions of State Government departments have strategic plans, the majority of which are of five years' duration.

- \* The majority of regional managers view their departments as lead agencies with key roles in the economic development of the CQ Region.
- \* An overwhelming majority of regional departmental managers regard strategic planning as necessary to promote the advancement of the Region.
- \* A slight majority of respondents (nine out of seventeen) expressed the view that Mackay should be part of a CQ Super-Region.
- \* A majority of respondents (eight out of fifteen) considered Bundaberg to have strong economic and commercial bonds with Southeast Queensland and therefore should not be considered part of the broader CQ Region.
- \* A convincing number of respondents (ten out of thirteen) favoured the development of stronger industrial/commercial linkage between Gladstone and Rockhampton.
- \* A clear majority of respondents (thirteen out of seventeen) favoured the extension of rail electrification to Mackay.
- \* Respondents convincingly rejected the proposition that a Regional Development Authority should be established to coordinate the development of the CQ Region with twelve out of nineteen respondents opposing the idea.
- \* A clear majority of respondents (fifteen out of eighteen) supported the view that the CQ economy was entering a period of sustained economic growth.
- \* The majority of respondents (sixteen out of nineteen) considered that the supply of reasonably priced housing in the CQ Region was inadequate.
- \* Most departments (sixteen out of eighteen) indicated that they used the services of other departments in their day-to-day activities.
- \* There was virtually consensus that the promotion of the CQ Region has been only average - in fact, low key - with an overall rating of only 3.8. For details, consult Table 5.21
- \* As one might expect, the quality of CQ infrastructure received a higher ranking (5.2) from public sector respondents than it did from their private sector counterparts (4.8). Details are provided in Table 5.22.
- \* In terms of strategic considerations, from an economic development standpoint, improving infrastructure, engaging in serious strategic planning, adding value to staple CQ commodities and providing incentives to business and industry were seen as the most important issues. See Table 5.23 for a







**TABLE 5.23: RANKING OF STRATEGIC CONSIDERATIONS**

RANKING	STRATEGIC CONSIDERATIONS	FIRST	SECOND	THIRD	TOTAL SCORES
1	Improve general infrastructure	1	6	3	18
2	Develop strategic plan for CQ	3	1	2	13
3	Develop natural resources in CQ	1	3	2	11
4	Develop industry incentives	3	0	1	10
5	Improve industrial infrastructure	2	2	0	10
5a	Improve transport links	1	1	0	2
5b	Improve water supply systems	1	0	0	1
5c	Improve port infrastructure (containerisation facilities)	0	1	0	1
6	Improve promotion of CQ	1	2	0	7
7	Improve social infrastructure	1	0	4	7
8	Develop cross-regional CQ identity	1	0	0	3
9	Establish subsidies for major utilities	1	0	0	3
10	Improve co-ordination between development parties	1	0	0	3

detailed breakdown of issues. Two out of these three top ranked considerations were also raised in the Private Sector Survey (BR.4).

- \* In terms of impediments to economic growth and development, isolation (the tyranny of distance), a poor self-image and a lack of effective promotion were ranked highest. See Table 5.24 for details of rankings. This virtually endorses the ranking of impediments to be urgently addressed nominated in the Private Sector Survey (BR.4).
- \* Some 74% of respondents, or fourteen out of nineteen, were aware that the present Study was being undertaken.
- \* Expected beneficial outcomes from the Study, as shown in Table 5.25, were as follows:

Top Ranked: Identification of the CQ Region's economic potential (11 points)

Second Ranked: It would lead to a coordinated approach to regional economic development (9 points)

**TABLE 5.24: RANKING OF PERCEIVED IMPEDIMENTS TO ECONOMIC DEVELOPMENT IN CENTRAL QUEENSLAND**

RANKING	DRAWBACKS/DISADVANTAGES	FIRST	SECOND	THIRD	TOTAL SCORES
1	Distance from major centres/isolation	7	5	1	32
2	Poor image/perception of the CQ region	4	0	0	12
3	Lack of effective promotion	2	1	2	10
4	Lack of co-ordination between development parties	1	2	0	7
5	CQ's low public profile	2	0	0	6
6	Lack of development planning	1	1	0	5
7	Lack of adequate infrastructure	0	2	1	5
8	Lack of information on the CQ region	0	2	0	4
9	Lack of industry creativity/innovation in CQ	1	0	0	3
10	General community complacency/apathy	0	0	3	3

**TABLE 5.25: BENEFICIAL OUTCOMES OF THE STUDY**

RANKING	BENEFICIAL OUTCOMES OF THE STUDY	FIRST	SECOND	TOTAL SCORES
1	Identification of economic potential	5	1	11
2	Leads to a co-ordinated approach to development	4	1	9
3	Increasing awareness of region's resources	3	0	6
4	Step towards a CQ development body	1	3	5
5	Development of an information database	2	1	5
6	Used to identify strengths, weaknesses, opportunities and threats	1	2	4
7	Use as a planning tool	0	3	3

Third Ranked: It would increase awareness of the Region's resources (6 points)

- \* Fifteen out of nineteen, or 79%, of respondents were aware of the *Central Queensland Journal of Regional Development*.
- \* Beneficial outcomes of the Journal nominated by respondents, and detailed in Table 5.26, were: keeping people informed on CQ issues (14 points); stimulation of economic development ideas (4 points); and, equal on three points each, developing a positive image for Central Queensland; a promotional medium; and an outlet for the expression of views on the development of Central Queensland.

**TABLE 5.26: BENEFICIAL OUTCOMES OF JOURNAL**

RANKING	BENEFICIAL OUTCOMES OF JOURNAL	FIRST	SECOND	TOTAL SCORES
1	Enables people to keep abreast of what is happening in CQ	7	0	14
2	Simulation of economic development ideas	2	0	4
3	Develops positive image for CQ	1	1	3
4	Promotional tool	1	1	3
5	Outlet for local people to express their views	0	3	3
6	Provides a focus of attention on economic development	1	0	2
7	Provides a balanced/neutral approach to industry development	0	2	2
8	Provides tangible examples of innovation and development projects	0	1	1

- \* Twelve out of nineteen, or 63%, of respondents were aware of IBECQ.
- \* Expected beneficial outcomes of IBECQ, as detailed in Table 5.27, were: (i) it 'provides the key to international recognition' (6 points); (ii) it 'provides the means for attracting overseas investment' (4 points); and (iii) it 'encourages the generation of ideas' (3 points). (See BR.5 for details)
- \* Only eight out of fifteen respondents, or 42%, thought that the CQ economy was capable of leading Australia out of the recession. One might conclude from this that public sector personnel were less optimistic than the private sector regarding Central Queensland's immediate growth prospects. In fact,

the phrasing of the question may be at fault. If, instead of 'capable of leading Australia out of recession' it had read, 'will make a major contribution towards Australia's economic recovery', the positive response would be 100%. This indicates that senior public servants take care in interpreting questions.

**TABLE 5.27: BENEFICIAL OUTCOMES OF IBECQ INITIATIVE**

RANKING	BENEFICIAL OUTCOMES OF IBECQ INITIATIVE	FIRST	SECOND	TOTAL SCORE
1	Provides key to international recognition	3	0	6
2	Provides push to get overseas interest and investments	2	0	4
3	Encourages generation of ideas	1	1	3
4	Allows for the creation of international linkages	1	0	2
5	University seen as neutral governing body	1	0	2
6	Allows for information exchange	0	1	1
7	Encourages development of industry	0	1	1
8	Focuses on export opportunities	0	1	1

## **SECTION 6**

### **SETTING ECONOMIC DEVELOPMENT PRIORITIES FOR THE CQ REGION: IN A NUTSHELL**

## **6.0 SETTING ECONOMIC DEVELOPMENT PRIORITIES FOR THE CQ REGION: IN A NUTSHELL**

### **6.1 INTRODUCTION**

This Section of the Study Report documents the strategic economic development directions provided by two structured one-day Workshops, a Study Consultative Committee Workshop and a Public Workshop, conducted on 6 October and 26 November respectively.

Details of the proceedings of the Study's Consultative Committee Workshop are provided in Background Report No. 6 (BR.6) and those of the Public Workshop in Background Report No. 7 (BR.7).

Whilst the Consultative Committee Workshop dealt with economic development issues relevant to each of the five sub-regions in turn, the Plenary Session addressed Region-wide issues, as did the Public Workshop. It is these Region-wide issues, most of which have already been raised at earlier consultative stages of the Study, that constitute the basis of discussion in this Section.

### **6.2 THE CONSULTATIVE COMMITTEE WORKSHOP**

The Plenary Session, which wound up the structured Workshop Agenda, took the form of a brainstorming session facilitated by a Study Management Committee member who had not participated in the Workshop deliberations throughout the day.

By this stage of the Workshop, presentations had been given on each of the five sub-regions and various development initiatives and problems discussed.

Participants were requested to concentrate on the big issues that were relevant to the development of the Region as a whole initially, then to identify sub-regional or location-specific issues. These latter issues were used in framing the five sub-regional CQ RED Strategy Study outlines.

The Region-wide considerations raised were:

1. *In order to promote a unified regional thrust and image, it was critically important to develop a multi-purpose marketing/promotional strategy for the entire CQ Region.*

(It was thought that this should be a jointly funded initiative and should be of the highest professional standard.)

2. *From a business/industrial development standpoint, the initial concentration should be on CQ import replacement, rather than on trying to develop new products with which to 'crack' new export markets.*

(This would involve CQ operators supplying more of the food and other day-to-day needs of the mines, resorts, hotels and motels, as well as the local general consumer market. The view was expressed that there was a cargo cult mentality about the 'export or perish' approach.)

3. *The integration of modes and considerable improvement of the transport system is needed in order to provide a streamlined freight forwarding network.*

(This could well be a means of establishing a competitive advantage in some product lines. It would certainly enhance the attractiveness of Central Queensland from an investment standpoint.)

4. *Specialist export services were badly needed in Central Queensland if producers were to gain maximum benefit from the aggregation of cargoes necessary to avail of cheaper freight rates.*

(Whilst the coal, beef, grain and cotton industries use the services of export specialists, potential small exporters were put off by the complexity and the cost. What was needed was the formation of a consortium of small operators that could strike better deals with transport, freight forwarding, cargo handling, cargo storage and legal and insurance organisations specialising in international trade.)

5. *To encourage investment in Central Queensland, it is necessary to provide one-stop-shop facilities for government approvals and the acquisition of key commercial and regulatory information affecting location decisions.*

(If better resourced, Regional Development Organisations working closely with local government, DBIRD and other State Government departments, are well placed to provide this facility.)

6. *There is a need for a CQ regional forum comprised of present RDOs/ managers who should meet once every six months to discuss Region-wide issues and develop strategies.*

(This body is necessary in order to give the CQ Region a more authoritative voice within the State regional economic development context.)

7. *There should be government recognition that the CQ Region must grow significantly in terms of population and job opportunities to match the value of commodity production and export performance of the Region.*

(The point was stressed that the CQ Region can support a higher population growth rate and, in so doing, can take pressure off the Southeast Queensland Region and prevent Brisbane and environs from developing over-population and pollution problems of the type currently being experienced by Sydney. There are Brisbane mindsets as well as Central Queensland mindsets that need to be discarded.)

8. *Whilst the CQ economy will be heavily reliant on the export of unprocessed bulk commodities for many years to come, there must be a very conscious effort to steadily increase primary stage value-adding and develop some high value-adding operations, particularly in the processed food export area.*

(Value-adding has to be phased in; it has to be planned. A Total Quality Management [TQM] approach to strengthening Central Queensland's processed food export performance is necessary. Attention has to be given to developing a generic CQ brand [CQ = Certified Quality] and earning the 'Clean and Green' label.)

9. *To support Central Queensland's drive to develop a keen export opportunity awareness, it is necessary to improve the quality of business/commercial performance, including managerial performance, across the Region. The CQ community should stand firmly behind IBECQ.*

(Attitudes must change to become more development conscious and to develop a global awareness. The media and tertiary education institutions and IBECQ can assist in breaking down parochial mindsets.)

10. *There is a need for residential development to match economic development if housing/accommodation shortages are not to act as a deterrent on economic development.*

(Housing shortage problems exist in the Central Highlands and rentals are increasing fairly rapidly in Rockhampton, Mackay and Gladstone.)

11. *Some attention should be directed towards ensuring that a range of adequate industrial development land is available and there should be compatibility between activities allocated adjacent to sites or sites in close proximity.*

(The point was made that industrial site allocation between different types of industrial activities [toxic versus non-toxic] was presently a bit haphazard. This area needs more attention. RDOs need to be fully informed on industrial land availability.)



12. *Natural gas supply and rail electrification should be extended to Mackay to make the area more attractive to investors to provide more efficient transport, to promote tourism and support closer integration of the CQ Region.*

(The provision of an electric rail link would assist in establishing greater commercial linkage between Mackay, Rockhampton and Gladstone.)

13. *Organisations such as CSIRO, QDPI, UCQ, DBIRD and other government departments should be in a position to provide a combined effort to promote the development of the CQ Region. A unified approach by these lead agencies would be a great boost to business and community confidence.*

(At present there was too much fragmentation; there was no unified vision; there were no broad development outlines to follow.)

14. *Local Government Authorities needed a broad planning framework within which to draw up their own plans and strategies.*

(There was a need to *educate* LGAs on the rudiments of strategic planning. Local Government Authorities were being provided with inadequate information on State Government plans and initiatives.)

Other points raised were:

- \* Strategic decisions are needed.
- \* Planning is essential (long range - five years plus).
- \* Sub-regions must help themselves.
- \* There needs to be cooperation/collaboration across the broad CQ Region.
- \* Major opportunities/projects are beyond our control.
- \* Small-scale opportunities do exist.
- \* The Future Search Workshops gave locals a feeling of ownership in the planning process.
- \* Economic development depends on local government:

- (a) making development easier
  - (b) supporting development boards
  - (c) providing infrastructure.
- \* The timing was never better (recession - government welcomes solutions).
- \* There is a lack of finance for investment and a lack of assistance for small business.
- \* There is a need for diversification away from dependence on large industry (multinationals).
- \* There is a need to maximise linkages/advantages of existing industries/avoid leakages.
- \* Labour force planning/development must match supply and demand.
- \* Promotion of the CQ Region to financial institutions is important.
- \* Economic Impact Studies need to be provided for larger areas/regions and applied globally.
- \* Water resources planning and management is needed.
- \* There is a need for international air passenger/cargo links with Central Queensland.
- \* There is a need for equity and access to all education, especially tertiary.
- \* It is important to strike better deals with transport, freight forwarding, cargo handling and storage organisations.

## 6.3 THE CQ ECONOMIC DEVELOPMENT PUBLIC WORKSHOP

### 6.3.1 INTRODUCTION

The purpose of this Public Workshop was to provide an opportunity for people from the main coastal centres who had not been contacted through the consultative process to have a say on what direction the development of the CQ economy should take, what short, medium and long-term objectives should be set, the pace at which development should proceed and how to gain maximum advantages from opportunities to promote the economic growth and prosperity of the Region.

Given that the Public Workshop was scheduled towards the end of the Study period, many participants had the advantage of the progressive feedback that had been provided as the Study proceeded.

The Workshop Groups were guided by experienced DBIRD and UCQ facilitators.

At the commencement of the Workshop, participants were given a briefing on the purpose and scope of the Study and were given a synoptic presentation on the resource base and recent performance of the CQ economy.

The Workshop addressed the topic of the future economic development of the entire CQ Region, not just the coastal centres and their immediate hinterlands.

It was stressed at the outset that it was necessary to maintain the integrity of the five sub-regions or economic zones that made up the CQ Region which, by and large, were natural alignments where a communality of interests was seen to exist between the LGAs that comprise these sub-regions, while at the same time presenting a strong, unified CQ image where the interests of the CQ Region as a whole are paramount.

In participating in developing a 'Future Vision for Central Queensland', participants were given the following guidelines:

- \* Your ideas are important.
- \* Identify directions you would like the future economic development of CQ to follow.
- \* Consider opportunities to expand existing industries; to start new ventures; to add value to CQ products; to create employment opportunities; to enhance the economic growth and prosperity of the CQ Region.
- \* Consider ways of facilitating the economic development process by identifying infrastructural and service needs.
- \* Construct an economic picture that reflects your future vision for CQ and generate a range of issues that are relevant to devising a workable economic development strategy to achieve the desired results.
- \* In this brainstorming session, you are encouraged to communicate freely and openly in generating a range of strategic considerations.
- \* Following a consolidation of the issues raised, using a weighted voting system, you will rank the key issues in order of perceived importance.

- \* Your facilitator will guide you but will maintain neutrality as it is *your* ideas and *your* priority rankings that interest us.
- \* It is important that you think in terms of the CQ Region as a whole even though some of the issues that you will raise will relate to a particular sub-region or LGA.

Details of the many considerations raised during the first session by the three Workshop Groups are provided in Background Report No. 7 (BR.7).

The six issues given top priority by means of a full Workshop participant weighted vote were:

1. Value-adding: Developing new industries and expanding existing industries (35 points)
2. Becoming part of a globalised market environment (35 points)
3. Promoting and developing a marketable sub-region/character/culture (26 points)
4. Taking advantage of information base/education training/expertise (18 points)
5. Gaining access to and management of finance (15 points)
6. Seeking changes to government initiatives/incentives (3 points)

The theme for the Workshop Afternoon Group Session was 'Narrowing the Focus - Making it Happen'.

The following guidelines were given to participants:

- \* Here we move from the broad 'future vision' framework where the emphasis was on generating ideas and outlining the key elements of a regional economic development strategy and provide a sharp focus on the three key issues that have been given top priority by Workshop participants.
- \* The operational objective is to 'narrow the focus' and devise the elements of a strategy that will 'make it happen'.

- \* Each Group should elect a presenter to summarise the approach adopted by the Group, but any member of the Group may elaborate on any aspect of the stance taken when all Workshop participants assemble for the Final Plenary Session.

In particular, participants were requested to:

- \* Take a definite stance.
- \* Express their own views, but sharpen the focus.
- \* Approach the Workshop with a view to making positive statements such as: 'In my view, the following objectives should be set and a strategy to attain these objectives devised'.
- \* Any plans put forward must result from community consultation, effective participation and, ultimately, there should be community ownership of any plans or strategies that evolve from this consultation process.]

The details of the in-depth analysis of the three top ranked issues may be found in BR.7.

The following summaries of the directions provided by each Group are a good indication of how well-informed on CQ regional economic development options the Workshop participants were and how pragmatic they were in drawing up realistic Action Agendas.

**GROUP 1: PRESENTER'S SUMMARY**  
**TOPIC: VALUE-ADDING - DEVELOPING NEW AND EXPANDING**  
**EXISTING INDUSTRIES**

**ACTION AGENDA**

1. To list and categorise the suggested areas where development opportunities were perceived to exist.
2. To provide a forum to make representations on infrastructural projects relevant to regional value-adding industries.
3. To apply for (and obtain) funding to conduct pre-feasibility studies of identified projects.

4. To develop a strategy to attract investors to the Region and expressions of interest in the economic development of the Region.
5. To marry investors to projects.
6. To ensure the necessary follow-up action so that identified potential projects can be advanced and brought to fruition.

**GROUP 2: PRESENTER'S SUMMARY**  
**TOPIC: BECOMING PART OF A GLOBALISED ECONOMY**

**ACTION AGENDA**

1. What we mean: e.g. define
  - . structure
  - . cultural/community awareness
  - . total quality management
2. To make it happen, e.g.
  - . establish relationships
  - . effective communication
  - . people matter
3. Examples of what we mean and what we want: What are we already doing successfully? E.g.
  - . QANTAS
  - . Agribus exports
4. What we must do to make it happen at CQ level. E.g.
  - . joint ventures
  - . tap local contacts, people
  - . acquire strategic information
  - . develop 'CQ Can Do' image
  - . support IBECQ as a lead agency
5. What CQ needs to do that is new or different to become part of a global market, e.g.
  - . tap into international/interstate visitor circuit
  - . tap local resources
  - . conduct community awareness Workshops

- . provide access facility for in-bound business/trade missions (IBECQ ideal agency)
6. Search, ask, focus, do, e.g.
- . Who? What? How? When? Why? Where?
  - . ask questions at all levels of government
  - . ask questions of industry, business and community groups, e.g.: are regional promotional and development bodies doing what they should be doing, or what they say they are doing? Can they show results?
  - . get the momentum going
  - . thinktanks help to dispel 'tunnel vision'
  - . Workshops like this can lead to productive idea sharing and resource sharing
  - . form mutually beneficial strategic alliances to avail of cost saving and expertise sharing

### **GROUP 3: PRESENTER'S SUMMARY**

#### **TOPIC: DEVELOPING AND PROMOTING A MARKETABLE CQ REGION**

#### **ACTION AGENDA**

1. Put a statistical dimension on the value of output and commodity export value of the five sub-regions.
2. There is a need for integrated planning that targets specific projects/ industries.
3. Draw up mission statements, objectives and targets for each sub-region.
4. It is important to attract people to live and invest in the Region, as well as to retain people in the Region.
5. It is important to possess a CQ image or ethos that generates confidence.
6. There must be a unified approach - a genuine unity of purpose that is above petty parochialism.
7. Create win/win situations.
8. Community consultation at the small area level has to be encouraged.
9. People must be recognised as the most important resource.

These two Workshops were immensely valuable in that they built on, and, in the main, endorsed the strategic directions provided throughout the entire Study consultation process, starting with the Future Search Workshops in the Central West and Central Highlands Sub-Regions.

The high standard of the analysis, the filtration of information, the evaluation of options and, very importantly, the distillation and development of policy guidelines was encouraging and most valuable.

There was a feeling of confidence and enthusiasm, and clear evidence of an emerging spirit of unity and trust that augers well for the future.



## **SECTION 7**

### **CENTRAL QUEENSLAND REGIONAL AND SUB-REGIONAL ECONOMIC DEVELOPMENT STRATEGY OUTLINES:**

#### **SETTING THE COURSE**

## **7.0 CENTRAL QUEENSLAND REGIONAL AND SUB-REGIONAL ECONOMIC DEVELOPMENT STRATEGY OUTLINES: SETTING THE COURSE**

### **7.1 INTRODUCTION**

This Section of the Study Report provides a synthesis of the various regional economic development policy strands that emerged from the extensive consultation process documented in the sequential Background Study Reports. These strategic directions have been screened and filtered and, on the basis of a comprehensive analysis of the resource base, the recent economic performance and the future economic development prospects of the CQ economy, and in consultation with the relevant RDOs, have been used to frame outlines of economic development strategies for the Region as a whole and for its component sub-regions.

An additional valuable information source used in framing these strategies was the Manufacturers and Specialist Service Providers (Database) Study, whose key findings are documented in Background Report No. 8 (BR.8).

The Miriam Vale Shire Economic Development Strategy Study is used to exemplify the important role of local government in the regional economic development process and the value of having a clear strategy to follow.

### **7.2 CONCEPTUAL ISSUES**

Several theoretical considerations were raised at the Study Team review sessions following the Consultative Committee Workshop and the Public Workshop. Five have been singled out for special mention in this Section, not because they represent a particular judgemental (value) stance, but to allay any fears that the essence of the consultative process was lost by superimposing Study Team preferences over those revealed by the spectrum of regional interests consulted in the course of conducting the Study.

#### **7.2.1 COMMUNITY INPUT VERSUS STATISTICAL AND CONCEPTUAL INPUT**

Two related questions were posed: 'How are you going to balance (or weight) community aspirations against hard economic facts?' and 'What if these community aspirations do not accord with accepted regional economic development theoretical principles?'

In relation to the first question, it was evident that what the various communities put forward as desirable initiatives, or new strategic directions that should be taken, were not incompatible with a range of potential future prospects for the economic

development of the CQ Region derived from the analysis of the Region's resource base and recent economic performance. In other words, in terms of mainstream outcomes, any 'wish lists' that were generated were cast within realistic economic constraints.

Regarding the second question, this Study was not conceived as an attempt to capture community-generated regional economic development initiatives within the framework of some accepted model of regional economic development.

Provided the information elicited through upward vertical communication channels was marshalled objectively and no distortion occurred, the integrity of the 'bottom up' consultative approach would be maintained. Community aspirations that could be translated into actuality would be enshrined in the sub-regional and regional economic development strategies that would subsequently emerge. However, economic feasibility criteria and political and institutional constraints would no doubt temper some of these aspirations.

So, in fact what has evolved is a methodology that yields a synthesis of ideas and aspirations generated at the community level with professional interpretations of the relevant trends and projections in order to signpost a preferred middle to long term economic development route that is achievable.

Clearly, there are other criteria on which the quality of regional economic development strategies can be judged, other than maintaining the integrity of the consultative process.

There was general acceptance that it was desirable that regional economic development strategies should be:

- (i) based on discriminating, yet objective, analysis of a robust, up-to-date database;
- (ii) founded on sound economic principles;
- (iii) consistent with State and federal government regional economic development policies, or strategies where relevant;
- (iv) compatible with and supportive of the visions and aspirations of those communities whose interests they purport to serve; and
- (v) sufficiently flexible to accommodate unexpected changes in the bounding parameters.

It was necessary to set the course on the understanding that, given good reasons, that course could be altered.

### 7.2.2 THE SUB-REGIONAL STRATEGY AGGREGATION PROBLEM

The possibility of inconsistency between the 'bottom up' consultative approach espoused by the Study and presenting an overall CQ economic development strategy that was not an amalgamation of the five sub-regional strategies, was raised.

Consensus emerged in favour of the view that the whole was greater than the sum of the individual parts in this context, and the adoption of a 'too-mechanistic' approach would tend to understate the inherent dynamics and potential of the larger CQ entity.

What was involved was really a five tier system. Whilst the CQ Region should frame its preferred development strategy within the parameters of State regional economic development policy, the States likewise had to be cognisant of any corresponding federal guidelines.

By the same token, sub-regional strategies should be consistent with the overall regional strategy and should embrace, but not necessarily be confined to, the vision and aspirations of the individual LGAs that come within their ambit of coverage.

### 7.2.3 SUB-REGIONAL STRATEGIC PLANS VERSUS SUB-REGIONAL DEVELOPMENT ORGANISATION PLANS

In the course of the review of the Consultative Committee Workshop, it was noted that there appeared to be some confusion as to what constitutes a sub-regional economic development strategy; organisational corporate plans or strategies had been presented as if they were in fact sub-regional economic development strategies. In fact, none of the five sub-regions had presented a clearly conceived regional economic development strategy as such, but all provided the essential building blocks for such a strategy.

All LGAs have gazetted town planning schemes; some have Development Control Plans for the entire LGA, while some cover only particular parts of the LGA.

Some Shires have prepared what they call Strategic Plans, but often these plans do not have a great deal of strategic content in the broad economic development context, being largely concerned with land use issues.

Then, some Councils and Shires have prepared Corporate Plans, which are concerned mainly with financial planning and administration.

Very few Shires or Councils have availed of DBIRD financial support to develop proper economic development Strategic Plans, as has Miriam Vale Shire (Background Report No. 9 [BR.9]).

It would no doubt be easier for a sub-regional development organisation to have up-to-date strategic plans for all the individual LGAs that it represents. This would be a solid starting point for developing a sub-regional economic development strategy which would involve identifying common interest issues where greater synergy could be harnessed, as well as potential conflict areas where negotiation and arranging trade-offs may be necessary.

#### **7.2.4 PLANNING VERSUS FREE ENTERPRISE**

The point was raised that there was a fundamental conflict between planning and free enterprise. Planning reduces uncertainty, whereas free enterprise thrives on uncertainty. It was suggested that entrepreneurs have the gift of outguessing others in terms of predicting future events, but if key strategic information was available to everyone, there would be fewer entrepreneurial opportunities.

After some discussion it was agreed that the Study should not get bogged down because of some esoteric political economy controversy.

The position was adopted that planning is aimed at creating desirable outcomes from a societal viewpoint and should not be predicated on the basis of any political preconception or political ideology.

The type of planning involved in developing a regional strategy was not rigid planning that laid down a blueprint that was tantamount to a decree followed by bureaucratic enforcement.

It was flexible planning aimed at market enhancement and was supportive of free enterprise.

In fact, the 'movers and shakers' had a big input into the present Study and were vital to the whole process if desirable outcomes were to eventuate.

#### **7.2.5 THE CONFIDENTIALITY BARRIER**

Several thinktank participants, all of them private sector operators, supported the view that public servants had a habit of withholding strategic information that was not classified or confidential and therefore should be public domain.

Unnecessary bureaucratic barriers were frustrating business people who needed to get things done quickly.

It was noted that our Study had already revealed concerns regarding public service delivery and that certain departments as well as particular offices of the same department had been given top ratings, while others received mediocre ones.

One academic colleague expressed the view that public servants were administrators whose whole approach was cautious, whereas business people were accustomed to making on-the-spot decisions. Public servants are accountable to politicians for their decisions, whereas the market place (or sometimes the shareholders) are the only sanctions on entrepreneurial decisions. It is the lack of urgency in day-to-day decision-making that gives the bureaucracy a bad reputation among business people.

It was generally agreed that, to a large extent, it comes down to individuals. Dyed-in-the-wool bureaucrats, trained in-house to be administrators and custodians of the public purse could not be changed overnight into 'on-their-toes', alert entrepreneurial bureaucrats, despite the aspirations of corporatisation.

The government was striving for more efficient service delivery. That should translate into the dismantling of bureaucratic barriers.

It was in fact up to the newly appointed regional managers to sort out their staff problems and develop a new market facilitating culture.

Even in the course of this Study, we had been confronted with tacit compliance with reasonable requests for information that was not classified or commercially sensitive, even given clearance by the CEO. The conclusion was that it takes more than corporate plans and euphemistic Position Papers to free up the *modus operandi* of some antiquated segments of the Queensland Public Service bureaucracy.

The positive side is that such situations are becoming rare and the present direction of change is conducive to loosening up the system.

#### **7.2.6 THE BIG DECISIONS ARE MADE OUTSIDE CENTRAL QUEENSLAND**

The point was made that, irrespective of the outcomes of this Study, the big decisions that will affect the future of this Region are made outside the Region with little or no consultation with the CQ community.

The point was taken. Given the nature of the Region's resource base, and the lack of interest in community participation in regional development planning until recently, this was inevitable.

#### **7.2.7 CONCLUDING COMMENT**

It was considered desirable to make statements on these issues before specifying the strategic directions that had emerged from the iterative consultation process.

### 7.3 PROPOSED REGIONAL DEVELOPMENT STRATEGY: CQ REGION

The driving forces behind the CQ economy have been clearly identified, the resource base has been documented, future prospects for key industries have been explored and recent economic performance has been analysed.

### 7.4 THE DYNAMICS OF CENTRAL QUEENSLAND

Basically, the main forces driving the CQ economy have been determined by past decisions and coal, agricultural production and mineral processing and production will continue to dominate the development of the CQ economy for the next decade and beyond.

#### 7.4.1 COAL PRODUCTION

Coal is produced mainly for export, but is also used for electricity generation, which, in turn, facilitates coal mine development.

Characteristics of this industry are:

- (i) it is Central Queensland's lead industry in terms of value of commodity production and is continuing to extend its lead; and
- (ii) it will continue to dominate the CQ economy for the next decade and beyond.

On the **negative** side:

- \* It is not a major employment industry, being capital intensive.
- \* Like extractive mineral industries in general, much of the income it generates does not enter the Central Queensland or State economies.
- \* Where high foreign ownership is present, a high proportion of profits flow overseas - producing a negative balance of payments effect.
- \* It is a depletable resource whose final residue may be denuded landscape, spoil heaps and final voids.
- \* There is the medium term concern that, due to the global threat posed by Greenhouse gas emissions, international pressure and even trade sanctions will reduce and eventually eliminate its continued use as an energy source.

- \* In Central Queensland, and Queensland for that matter, it creates an export dependency that makes an economy highly sensitive to fluctuations in the exchange rate and international commodity markets.
- \* In the CQ and Queensland context, it has not been associated with any concerted attempt to value-add to the raw commodity.
- \* A heavy dependence on the custom of one nation - Japan - has evolved. This buyer concentration can create problems in price negotiation.

On the **positive** side:

- \* It is a major export earner for Queensland and Australia.
- \* It has attracted the necessary venture capital, a high proportion of which is internationally sourced, to develop a valuable natural resource.
- \* It has been instrumental in the provision of modern transport infrastructure in the CQ Region.
- \* It has generated revenue for the Federal and State Governments in the form of taxes and royalties.
- \* It has facilitated the establishment of an efficient electricity industry that, in turn, has assisted in attracting industrial and commercial development to the State and the CQ Region - Gladstone in particular.
- \* It has created jobs.
- \* It has provided greater skilling of the workforce it employs.
- \* It has been instrumental in raising the level of social amenities in local communities in mining areas.

If it is inevitable that coal mining will continue as the dominant influence on the future direction of the economic development of the CQ economy, what can be done in strategic terms to maximise the benefits and minimise the disbenefits or negative effects?

- \* Placing a major emphasis on developing and commercialising value-added coal products like the Yarrabouldy coal briquette, which has the advantages of creating jobs, earning export income from new niche markets and providing an environmentally acceptable product.



- \* Increasing Central Queensland's stake in servicing and victualling the mining communities with CQ fresh and processed food and other products.

This will generate additional income and jobs in the Region and prevent unnecessary expenditure leakages from the Region.

- \* Making greater use of coal transport infrastructure, for example using coal wagons for cheap backloading of inland bound pallatised and other cargo.
- \* Mounting joint research programs to address the problems of mine rehabilitation and afforestation, making more effective use of mining company funds allocated for this purpose, as well as investigating the water storage potential of final voids and the associated imperative of ensuring that such water is commercially valuable.
- \* Researching new technology for alleviating the disamenity affects of coal mining in general and of burning coal for electricity generation or other purposes, and the related issue of the diffusion of environmentally friendly technology within the industry.
- \* Encouraging companies to be good corporate citizens and forming constructive strategic alliances with them.

The coal industry, because of its inherent growth potential and present rate of expansion, has to form the basis on which a CQ Regional Economic Development Strategy is predicated. It may not be possible to influence this industry's rate of development, but it is possible to negotiate more beneficial spin-off for this Region while the industry is on a sanguine growth tack.

#### 7.4.2            **AGRI-FOOD    PRODUCTION:            SOME    STRATEGIC CONSIDERATIONS**

- \* The production of *food products* for domestic and export markets was the main driving force behind the CQ economy before coal took over, around 1974-75.
- \* A range of industries within the CQ Region have an absolute advantage in the production of commodities like beef, wool, sugar, grain, cotton, fruit and other crops.
- \* In addition, there is a range of opportunities for processing many of these products for sale in domestic and export markets, many of which have already been developed or partially developed.

- \* Strategically, instead of approaching international markets on an industry by industry basis, a strong case can be made for marketing Agri-food as a composite entity.
- \* Enormous savings can be generated by concentrating on generic issues such as streamlining the packaging and transportation of food products. This would yield cost savings to producers, but would involve developing new cooperative arrangements between producer groups and disbanding most of the existing ones.
- \* An Agri-food Marketing Strategy could replace the disparate commodity strategies that presently exist.
- \* Uniting under the Agri-food banner would be more cost-effective due to enhanced bargaining strength, and would have more impact by consistently promoting a uniform quality brand. This also involves negotiating better freight deals and modernising freight packaging, storage and forwarding practices.
- \* More food processing within the Region is desirable in order to retain income within the Region and open up more job opportunities, but more emphasis should be placed on value-adding to final consumption stage, which will open up more domestic outlets, as well as overseas niche markets. It is important to avoid developing an export 'cargo cult'.
- \* International trade expertise should be pooled and structures for acquiring and disseminating crucial international trade information should be developed.
- \* The fast growing Northeast Asian markets, including Korea, Taiwan, the People's Republic of China, as well as Japan, should be set as target markets and, to a lesser extent, Southeast Asia, including Singapore, Malaysia and Indonesia.
- \* There is an exciting opportunity to develop a kangaroo meat industry with the prime focus on export (Asian) markets, including kangaroo smallgoods products.
- \* There is scope for developing a CQ pet food (cats and dogs) industry, with an abundance of the necessary ingredients available.

Advantages of a concentration on Agri-food production in Central Queensland include:

- \* A comparative advantage exists for certain commodities and products in particular markets.
- \* It builds on an existing skill base.
- \* A reputable market reputation has been established in particular markets.
- \* In general, it uses a resource that has no alternative economic use: this applies particularly to pastoral activities.
- \* Its benefits are spread across the whole Region.
- \* The global market for food, particularly clean food, is characterised by the certainty of growth (world population increase).
- \* It can adopt frontier technology (CSIRO atmospheric control to prolong shelf-life).
- \* The processing side of the industry is labour intensive.
- \* It is serviced by well-developed transport infrastructure.
- \* It is a diversified multi-product industry and therefore not prone to changes in demand for one particular commodity or product.
- \* It could feasibly take over as a lead industry from coal if carefully developed and strategically positioned.
- \* Central Queensland has the advantage of being comparatively pollution-free (excepting toxic chemical residuals and minor atmospheric and sea pollution).

Possible limiting factors include:

- \* Shortage of water.
- \* Land degradation.
- \* Unfair international trade practices (tariffs, embargoes, export enhancement [subsidisation] programs, dumping).
- \* Prolonged drought.

The merit of this strategic shaft is that it is controllable and, if successful, its benefits will be spread right across the Region. The Japanese present a united front when haggling over the price of our coal. We should present a united front in selling our food products.

#### 7.4.3 MINERAL PRODUCTION AND PROCESSING

- \* The Gladstone aluminium industry is a good example of forward linkage with refining and smelting processes working in tandem.
- \* Magnesite has massive potential for expansion in Central Queensland - both production and processing and further downline value-adding, even to the end product stage for some products (engine blocks).
- \* The key advantages offered by the magnesite industry are:
  - . It is based on abundant local resource reserves.
  - . It has high value-adding potential.
  - . It has sound job creation prospects.
  - . It has environmentally friendly end products.
  - . It is a metal of the future.

This is a new industry in whose development we can have constructive input. The siting of plants tends to be decided on cost factors. The sharing of benefits in the form of good corporate citizenship may not be sufficient. There is a range of negotiable spin-off benefits, but we have to find a way of getting more representation at the negotiating table.

#### 7.4.4 NATURAL FIBRES (WOOL AND COTTON)

The long term prospects for increased demand for natural fibres is good, particularly with a swing away from plastic products for environmental reasons.

Central Queensland has the advantage of:

- \* Ample capacity to increase wool production (when stockpiles are depleted).
- \* High productivity wool production.
- \* Established expertise in wool production.
- \* High wool value-adding potential.

- \* Scope for expanded cotton production.
- \* First stage value-adding taking place in cotton production and scope for further downline processing.
- \* High quality product.

To advance a joint venture where Central Queensland has the raw materials, Korea (say) the investment capital, and the People's Republic of China the skills and labour productivity may involve returning the product to Australia for final end use finishing after offshore value-adding.

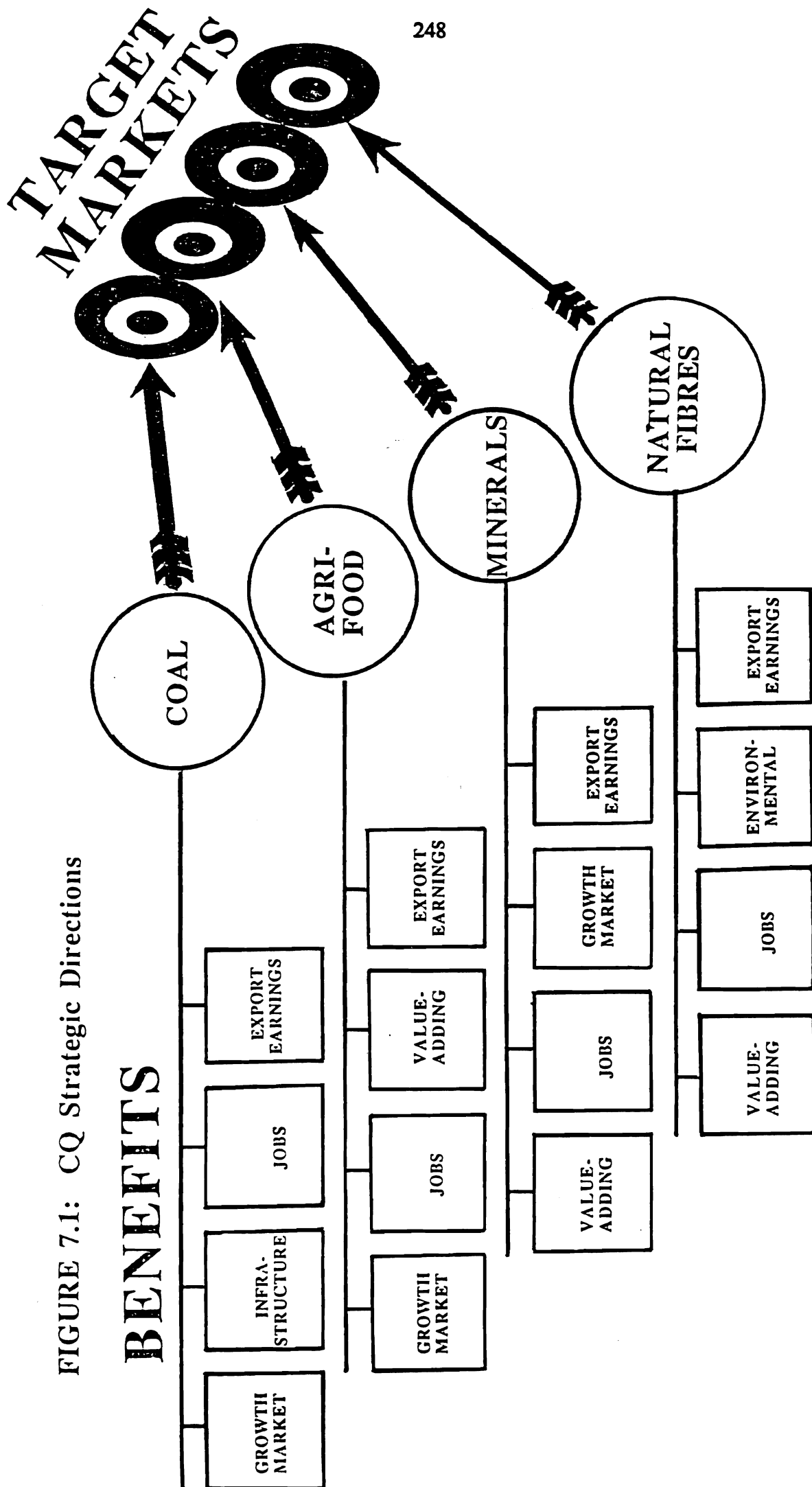
## 7.5 THE BARE ELEMENTS

The key elements in the Strategy, depicted graphically in Figure 1, are:

1. Derive more regional benefits from the lead sector, which is mining, covering coal, magnesite and other minerals, including oil shale.
2. Position the Agri-food industry well by forming cooperative alliances to lower the costs of distribution and marketing, and develop many small-scale value-adding ventures, shortening the chain between producers and consumers.
3. Cultivate the domestic market to expand the demand for high-value gourmet products, as well as standard lines.
4. Explore developing joint venturing arrangements with Northeast Asian partners to develop value-adding ventures in wool, cotton and hide processing.

Other directional thrusts identified were:

- \* Develop the consumer product and commercial services industries in Central Queensland to gain a greater share in supplying the CQ market.
- \* Develop a Region-wide strategy for tourism promotion with the primary emphasis on the domestic market. Investigate charter arrangements, package the attractions of the Region and engage in well-researched and finely pitched promotions to selected market segments.



- \* Continue to expand the education industry and spread its delivery across the Region, as well as expanding the education export activity.
- \* Present a reasoned case for the provision of identified transport infrastructure links that will enhance the attractiveness of the Region as an industrial location and a tourism venue.
- \* Encourage the development of a total government approach at the operational level to ensure that adequate water, industrial land and keenly-priced residential housing is available to facilitate economic growth and development.
- \* Develop a Region-wide artefact manufacturing industry, using only CQ products (Winton opals, Anakie sapphires, etc).
- \* Explore avenues for increasing the export of expertise to developing countries.

And, to facilitate building a vibrant diversified economy and a confidence-inspiring CQ image, stress the need for designating the target area for the present Study, with the addition of the Bundaberg Sub-Region, as Central Queensland. This will ensure that all government departments have the same areas of responsibility.

Having this CQ Super-Region clearly acknowledged is paramount if the Region and its products are to be effectively promoted.

## 7.6 THE ROCKHAMPTON SUB-REGION STRATEGY

This sub-region has not followed a strategic planning approach in the past, but such a strategy has been in the development phase over the past year.

Rockhampton's established role as the regional administration and service centre is being consolidated, with education emerging as a major growth industry.

Rockhampton has the opportunity to become a tourism hub for the Region, being well positioned to deploy tourists to the other five Shires that comprise the sub-region.

The greatest opportunity that Rockhampton has is to become the food processing, packaging and freight forwarding centre for the CQ Region. It is ideally located in terms of road, rail and air links to service export and southern markets through the Port of Gladstone, and should use its own Port Alma for particular cargoes that are not compatible in close proximity to Agri-food products.

The attractions of the four surrounding Shires should be packaged and the conference venue market promoted, particularly in the mild winter months when southerners are anxious to escape to the north.

The heavier industries should be concentrated to the north of the city, where availability of natural gas and adequate industrial land and good road access are major attractions.

Rockhampton's Cattle Park, Biloela's Advance Australia Fair and Mount Morgan's historic village can add to the already established attractions of Rockhampton and Livingstone Shire.

Horticulture offers strong growth prospects in the lower Fitzroy Basin, provided adequate water for irrigation is available.

There are numerous small business gaps, including a proper delicatessen, a small goods industry, a colour-separation specialist, anodising facilities, a souvenir manufacturer and others. (See Background Report No. 8 [BR.8])

With the establishment of a Mechatricity office in Rockhampton in mid-1992 to more easily service the projected rapid expansion of mining activity in the CQ Region, the possibilities for winning other specialist service providers to the area should be canvassed.

## 7.7 THE GLADSTONE SUB-REGION

Gladstone, the industrial hub of Central Queensland, has been following a succession of strategic plans, and is willing to attribute a lot of its success to that very fact.

It is presently developing a new strategic plan and is addressing strategic planning horizons up to thirty years.

The Gladstone Harbour Authority Strategic Plan, released in mid-1992, has a fifty year planning horizon.

Clearly, Gladstone has chosen heavy industry as its spearhead, and the Gladstone-based projects listed in Section 2 of this Report point to a rapid expansion and diversification of heavy manufacturing activities over the next decade.

Strategically, Gladstone is well placed to operate a modern container port facility, attracting palletised and containerised cargo from the Mackay and Bundaberg Areas, as well as Rockhampton, the Central Highlands and the Central West.



Gladstone has now to aim at gaining a large number of smaller manufacturing industries producing finished metal products for domestic and overseas markets.

Tourism, strongly emphasised in the past in the 'Reef Adventureland' slogan, has great potential in the Agnes Water and Seventeen Seventy Area of Miriam Vale Shire. Calliope Shire has also got its rustic and scenic attractors, but is becoming increasingly involved in absorbing Gladstone City's spillover industrial expansion.

Gladstone City's rate of expansion may put pressure on its water supply and the affordable housing market. Awoonga Dam's yield, as distinct from its capacity, could become a limiting factor if projects like Gladstone Special Steel proceed simultaneously with other mooted major projects.

The beef and horticultural industries in the adjacent Shires of Calliope (cattle and horticulture) and Miriam Vale (cattle) provide diversification of the economic base, but do not offer major growth prospects.

Strategic planning in Gladstone will, of necessity, be mainly concerned with accommodating and absorbing the impressive list of large projects that are scheduled to start up operations before the year 2000.

Attention will have to be developed towards water and air pollution control, given the projected increase in coal handling and other heavy industrial activities.

## 7.8 THE CENTRAL HIGHLANDS SUB-REGION

Emerald, the main centre of the Central Highlands, is an expanding service centre with a focus on servicing the mines and mining townships.

It is strategically placed to develop as an important transport interchange and freight forwarding centre and should set its sights on this.

DBIRD and CHPDO have been involved in the investigation of the feasibility of establishing a dairying industry in the belt near Emerald.

With an alleviation of the water constraint for irrigation purposes, there is potential for the development of several horticultural crops, including grapes and mandarins.

The tourism industry offers good prospects for the Central Highlands, particularly if packaged well.

The Central Highlands would benefit from the one-desk approach to distributing and marketing agricultural produce.

Value-adding to grain would not appear to offer strong prospects, but increased lot-feeding would have a quality value-adding effect on a segment of the beef industry.

Providing education facilities within the Region and developing the service base, as well as attracting small-scale fabrication and repair industries to service part of the mining needs, have been advanced as desirable directions to follow.

Sharing in the strong growth in the mining industry by supplying more of the industry's victualling needs offers very good prospects for astute business people.

## 7.9 THE MACKAY SUB-REGION

This sub-region has to contend with the sugar tariff removal problem, which makes strategic planning relating to this industry difficult, particularly with the planned expansion in processing activities.

Should the proposed meat processing plant combined with feedlot operations at Clermont prove to be viable, it will provide jobs in an area where job opportunities have been dwindling.

Tourism, centred on the Whitsundays, offers this sub-region the best opportunity. The Whitsundays is set to become a tourist mecca that will outstrip Cairns before the turn of the century.

Mackay/Pioneer Shire already has a diversified manufacturing base. This can be further developed and, along with specialist service providers, can enjoy sustained growth from the mining expansion.

Sugar will remain a staple industry in the area and, with new refining and bagasse value-adding activities, will provide more jobs.

Mackay is expanding as an education centre. This is a growth area that should be actively pursued.

Retailing is an employment mainstay in Mackay City and is expanding steadily.

Mackay is the base for a viable fishing industry. This industry needs better organisation and management if it is to avail of domestic market opportunities.

The Mackay Sub-Region's economic development strategy, on the basis of the information supplied through consultation, combined with an assessment of its resource base and the market trends for the products it presently produced, should be anchored to the tourism industry.

Small-scale manufacturing and specialist service provision shows up as a productive secondary area of emphasis.

Mackay has lots of further scope for expansion in the area of education provision. This, too, should be given a high strategic ranking.

The sugar and cattle industries would benefit from adoption of the previously described Agri-food approach.

#### 7.10 THE CENTRAL WEST SUB-REGION

The Central West has to tackle a tougher economic situation than any of the other four sub-regions in Central Queensland, mainly due to the precipitous decline in the fortunes of the wool industry, but also because of its pastoral nature and being caught up in the raw commodity export syndrome - the area had not been able to develop a fall-back position.

The lack of a manufacturing base of any significance and the tyranny of distance were offered as major drawbacks.

The big strength is the determination and resilience of the people.

The key element in the Central West Strategy is to get some meat and wool processing operations going and provide some avenues for employment to arrest population loss.

Along with a feral animal (pigs and goats) abattoir, the Central West wants a mutton abattoir.

It is also ideally placed to become the kangaroo meat processing centre; a plague turned into a valuable resource by a piece of legislation.

The spearhead of the Central West's economic development strategy has to be meat processing, but should include smallgoods and a pet food (dogs and cats) processing industry, with a unique slant as discussed previously in this Report.

Tourism emerges as the second prong, but it needs a lot of organisation. The potential is there; and so is the will to work at it. The Hall of Fame is a reality and a prime tourist attractor. The Blackall Wool Scour is a unique attraction. Barcaldine, with its Tree of Knowledge and Labor Party origin connection, is another attraction that fits into the historic tourism theme. Then there is the Outback - the 'Real Australia' theme.

The beef industry will follow world market trends, but tourism activity can be built up by careful research and planning.

After the processing of meat other than beef, including pet food production and tourism, Longreach in particular can work hard at winning more service delivery outlets.

The Plenty Highway, to link up with the Northern Territory, will complement the Matilda Highway as a feeder system that makes the Central West more accessible.

There would appear to be merit in organising an annual Outback Festival to catch media publicity.

To overcome the boredom of long stretches of road between centres, air-conditioned coaches with poker machines or bingo for senior citizens may be an idea worth tossing around.

The options are limited, but there are some new opportunities such as kangaroo harvesting.

The natural gas venture near Blackall may be the start of a new resource industry in the Central West. It will certainly make manufacturing near the source of supply more attractive.

## **7.11 MAXIMISING SUB-REGIONAL BENEFITS**

Regional Development Organisations and the LGAs they represent should be able to identify with the overall CQ Strategy summarised in Figure 7.1 and described in some detail in Sub-Sections 7.4.1 to 7.4.5.

To maximise sub-regional benefits, it is necessary to devise ways of availing of the opportunities that arise from adopting the overall strategy and evaluating the effects of adopting the key recommendations in Section 8.

## **SECTION 8**

### **RECOMMENDATIONS AND IMPLEMENTATION STRATEGY: MAKING IT HAPPEN**

## **8.0 RECOMMENDATIONS AND IMPLEMENTATION STRATEGY: MAKING IT HAPPEN**

### **8.1 INTRODUCTION**

Interim recommendations and leads from the Future Search Workshops held in the Central West and the Central Highlands from March to August 1992 that have since been followed up by DBIRD are not listed here. These include assessing the economic feasibility of a mutton abattoir and wool scour in the Central West and a beef processing plant in the Central Highlands Area.

It is stressed that these summary recommendations are drawn from nine Background Reports which should be consulted for the rationale behind individual recommendations. Not all the policy pointers identified throughout the course of the Study have been incorporated in recommendations. Some consolidation had to take place as there was considerable duplication and overlap, with the same concerns emanating from different sources. For a quick check on policy implications arising from the total Study, refer S.S 2.4.6 p. 60, S.S 2.5.10 p. 73, S.S 2.7.7 p. 92, S.S 4.7 p. 181, S.S 4.11 p. 186, S.S 4.15 p. 191, S.S 6.3.1 p. 228 and S.S 7.5 p. 247.

Most of the recommendations in Sub-Section 8.2.1 are generic to the entire CQ Region.

Other recommendations, however, are specific to particular regions. For example, the recommendations in Sub-Sections 8.2.5 and 8.2.6 refer to the combined Central West and Central Highlands Areas and Miriam Vale Shire respectively.

The reason why the former are included in this final set of recommendations is because of the difficulties of organising tourism for such remote areas where distance is a major barrier, and the limited economic development options available, in the Central West in particular. These recommendations apply to those remoter areas which have just set up regional development bodies and are still in the process of developing appropriate strategies.

A separate economic development strategy, funded by DBIRD on a 50% matching basis, was carried out for Miriam Vale Shire by two members of the present Study Team at the same time as the present Study was being conducted. The methodology used and findings of this Study are reported in Background Report No. 9 (BR.9). The recommendations arising from the Study have most significance for Miriam Vale Shire and the Gladstone Sub-Region within which it falls, but are relevant to the entire Region from a tourism industry standpoint.

The reason for their inclusion here (Sub-Section 8.2.6) is that they provide a good example of the advantages of an LGA having its own focussed economic development strategy representing the community's perceived needs and aspirations set within the natural and financial resource constraints of the Shire.

Recommendations in Sub-Section 8.2.2 refer specifically to agricultural industries; those in Sub-Section 8.2.3 specifically to the tourism industry; and those in Sub-Section 8.2.4 to particular perceived needs in terms of transport infrastructure.

All recommendations are cross-referenced back to their prime sources in the context of the present Study. Several have multiple sources.

The Longer Term Considerations canvassed in Section 8.3 are scenarios beyond the Year 2000. Whereas the nature of the development path that Central Queensland will follow over the next decade is largely determined already, the scenarios that are set now will largely influence regional economic development in the long term.

## 8.2 KEY RECOMMENDATIONS

### 8.2.1 REGIONAL DEVELOPMENT - ORGANISATIONAL AND GENERAL

1. *The CQ Region should be delineated to cover all of Fitzroy, Mackay and Central West ABS Statistical Divisions and the northern segment (Bundaberg Region) of the Wide Bay-Burnett Statistical Divisions.*  
(SS 1.9, p. 17)

#### *Explanatory Note:*

This takes in 43 LGAs presently covered by six (6) Regional Development Boards, covers an area of 590,593 sq km (34.2% of the State's area) and, as at August 1991, had a population of 374,118; that is 12.6% of the State's population.

#### Advantages:

- . All government departments would have same boundaries.
- . Easier to implement total government approach.
- . Easier to monitor performance.
- . Administratively simpler.
- . More cohesion.
- . Stronger regional identity.
- . Easier to promote.
- . A diversified spatial entity.
- . Not detrimental to service delivery as there are six clearly specified sub-regions or economic zones.
- . Dispenses with an organisational anomaly.
- . Will yield efficiency gains.
- . Central Queenslanders want it.

2. *In order to promote a unified regional thrust and image, it is critically important to develop a multi-purpose marketing/promotional strategy for the entire CQ Region.* (SS 6.2 (1), p. 224)

It was thought that this should be a jointly funded initiative and should be of the highest professional standard.

3. *From a business/industrial development standpoint, the initial concentration should be on CQ import replacement, rather than on trying to develop new products with which to 'crack' new export markets.* (SS 6.2 (2), p. 225)

This would involve CQ operators supplying more of the food and other day-to-day needs of the mines, resorts, hotels and motels, as well as the local general consumer market. The view was expressed that there was a cargo cult mentality about the 'export or perish' approach.

4. *To encourage investment in Central Queensland, it is necessary to provide one-stop-shop facilities for government approvals and the acquisition of key commercial and regulatory information affecting location decisions.* (SS 6.2 (5), p. 225)

If better resourced, Regional Development Organisations working closely with local government, DBIRD and other State Government departments, are well placed to provide this facility.

5. *There should be government recognition that the CQ Region must grow significantly in terms of population and job opportunities to match the value of commodity production and export performance of the Region.* (SS 6.2 (7), p. 225)

The point was stressed that the CQ Region can support a higher population growth rate and, in so doing, can take pressure off the Southeast Queensland Region and prevent Brisbane and environs from developing over-population and pollution problems of the type currently being experienced by Sydney. There are Brisbane mindsets as well as Central Queensland mindsets that need to be discarded.

6. *Whilst the CQ economy will be heavily reliant on the export of unprocessed commodities for many years to come, there must be a very conscious effort to steadily increase primary stage value-adding and develop some high value-adding operations, particularly in the processed food export area.* (SS 6.2 (8), p. 226)



Value-adding has to be phased in; it has to be planned. A Total Quality Management (TQM) approach to strengthening Central Queensland's processed food export performance is necessary. Attention has to be given to developing a generic CQ brand (CQ = Certified Quality) and earning the 'Clean and Green' label.

7. *Specialist export services are badly needed in Central Queensland if producers are to gain maximum benefit from the aggregation of cargoes necessary to avail of cheaper freight rates. (SS 6.2 (4), p. 225)*

Whilst the coal, beef, grain and cotton industries use the services of export specialists, potential small exporters may be put off by the sheer complexity and cost of trying to 'go it alone' in the highly competitive export sector. What is needed is the formation of a consortium of small operators that can strike better deals with transport, freight forwarding, cargo handling, cargo storage and legal and insurance organisations specialising in international trade.

8. *The overwhelming dependence of the CQ economy on coal production is a major concern from a regional economic development standpoint, given the international pressure that is being mounted on the reduction of Greenhouse gas emissions. There is a need to plan now for diversification and the development of major replacement activities as export demand for coking and thermal coal is projected to taper off after 2005. (SS 2.2, p. 28)*

9. *The CQ economy is too reliant on the export of unprocessed commodities which tend to be subject to severe price and demand fluctuations. There is a need to develop a more diversified and balanced industrial base with emphasis on increased value-adding toward end usage; that is, cutting out some of the links between producer and consumer. (SS 2.2, p. 30)*

10. *Senior officers of existing regional development bodies should form a CQ Regional Development Group to represent the interests of the Region as a whole on generic issues, as well as forming cooperative alliances that will be mutually advantageous to each sub-region. This should be a mutually beneficial cooperative alliance, not another bureaucratic layer, and should not jeopardise the status of existing regional development bodies. (SS 6.2 (6), p. 225)*

Such a CQ regional economic development forum would give the Region a more informed and authoritative voice on State regional economic development issues.

11. *Regional Development Officers' (RDOs) salaries should be fully funded by the government. They provide a vital link between Regional Departmental Directors and their staff, regional officers and the business community, and can play a key role in the streamlining of service delivery. (SS 7.2.3, p. 238)*
12. *A concerted attempt should be made to promote and package the CQ Region as a unified entity for regional economic development, including tourism development purposes. (SS 1.9, p. 16 and SS 6.2 (13), p. 227)*
13. *The State Government should commission a Study to ascertain how to most effectively implement a total government approach to regional economic development. (SS 5.3.1, p. 215, and BR.5)*
14. *The ABS should be requested to publish the statistics contained in the Queensland Year Book on a Super-Region basis, viz Southern Queensland, Central Queensland as defined in Recommendation 1, and Northern Queensland. (BR.5)*

This would provide the basis for comparative performance evaluation between the three Super-Regions and would assist in relating real economic outputs to government agency inputs, thus identifying pockets or areas that may be over-serviced, or areas where efficiency in terms of service delivery is not being achieved.

15. *The State Government should be requested to produce a separate budget-related paper dedicated exclusively to the CQ Region as defined in Recommendation 1 (similar to the 1992 budget-related paper No. 9 on North Queensland). (BR.5)*
16. *In order to cope with the ubiquitous water shortage problem, there is a need for a multi-purpose water storage and utilisation management strategy. As this is well beyond the resources of the individual Shires, a total government approach that addresses industrial (including irrigation), commercial, tourism, recreational and domestic needs within an integrated planning framework is required. (BR.5 and BR.6)*
17. *Details of water resource planning, including supply, storage and projected Catchment needs, should be made available to RDOs on a sub-regional and LGA basis and statistics demands for various usages*

*(industrial, commercial, domestic, irrigation, recreational) should be published on a quarterly basis. (BR.6)*

18. *A multi-source energy plan to the year 2010 should be drawn up for the entire State with projected CQ supply and usage by demand category shown separately. (BR.5)*
19. *Industrial estate planning, in major centres in particular, but also on an LGA basis, should be directed towards a 20 to 30 year planning horizon, and details of zoning, extent of servicing, and caveats on type of usage should be published and distributed to RDOs. Some attention should be directed toward ensuring that a range of adequate industrial development land is available and there should be compatibility between activities allocated to adjacent sites or sites in close proximity. (BR.9 and SS 6.2 (11), p. 226)*

DBIRD and the Department of Housing and Local Government should agree on the assignment of responsibility for this task. A comprehensive study would need to be commissioned to establish and document the present base position, preferably on an LGA basis. The point was made that industrial site allocation between different types of industrial activities (toxic versus non-toxic) was presently a bit haphazard. This area needs more attention. RDOs need to be fully informed on industrial land availability.

20. *Details of changes in available land for different industrial and commercial purposes should be made available on a regular basis to RDOs, and the rates and charges and other conditions attaching to the lease or purchase of this land should also be made readily available. (SS 2.15.11, p. 128, BR.6 and BR.9)*

This would permit RDOs to be appraised of the current situation and to be in a better position to promote the relative attractions of their particular areas as manufacturing/business locations.

21. *An adequate supply of affordable residential land and housing should be made available in Gladstone, Rockhampton, Mackay and Emerald to alleviate current shortages and prevent this perceived deficiency from becoming a retarding factor in the economic development of the Region. There is a need for residential development to match economic development to ensure that housing/accommodation shortages do not act as a deterrent on economic growth and development. (SS 6.2 (10), p. 226, BR.6 and BR.9)*

If residential housing plans on a sub-regional or LGA basis do exist, they should be made accessible; if they do not exist at these levels, consideration should be given to their development. Housing shortage problems exist in the Central Highlands and rentals are increasing fairly rapidly in Rockhampton, Mackay and Gladstone.

22. *Development control plans for all Shires experiencing above average (for Central Queensland) population growth should be drawn up (covering the entire LGA) and these plans, when approved by the Department of Housing and Local Government, should be made readily available at the appropriate cost. (SS 6.2 (ii), p. 226, BR.6 and BR.9)*

23. *An inventory of potential business opportunities (market gaps) should be compiled for each sub-region. Such information is provided by the 'Manufacturing and Specialist Service' database surveys of Gladstone, Rockhampton and Emerald. (BR.9)*

RDOs should be assigned the task of updating and maintaining these databases.

24. *There should be a major interstate promotion to attract small businesses from southern States (New South Wales, Victoria, South Australia) and people in general, including pensioners, to re-locate to Central Queensland. (SS 6.2 (5), p. 225 and BR.6)*

25. *The CQ Region as defined for this Study should target a population growth rate over the period 1991 to 2006 equal to that projected for the State as a whole; that is, an increase of approximately 30% over the fifteen year period to yield an absolute increase of 89,620. (SS 3.6, p. 144)*

#### Explanatory Note:

This target should be set on the assumption that different areas will experience different population growth rates. There is no presumption that such growth should be balanced or should occur in proportion to existing cross-regional population distribution. The main coastal centres, already growth nodes, would tend to exhibit stronger attraction vectors than rural centres or remote areas.

26. *By the end of 1993, in line with the present total government approach to service delivery, a series of Position Papers with an exclusive CQ focus should be prepared on the following topics:*

- . *Population and Workforce Issues*
- . *Extractive and Mineral Resources*
- . *Agricultural Resources*
- . *Water Resource Management*
- . *Residential Land Requirements*
- . *Industrial and Commercial Land Requirements*
- . *Transport Infrastructure Needs*
- . *Coordination of Service Delivery*
- . *Solid Waste Disposal/Treatment*
- . *Rivers and Coastal Management*
- . *Nature Conservation*
- . *Open Space and Recreation*
- . *Tourism Promotion and Development*
- . *Industry Location*
- . *Rural Residential*
- . *Alternative Land Usage*
- . *Flood Mitigation Strategies*
- . *Ecologically Sustainable Development Issues*
- . *Water Treatment (BR.6)*

27. *The Position Papers proposed in 26 above should become the subject of a series of Public Workshops organised by the relevant Regional Development Organisations to be held across the CQ Region, in which DBIRD, DPI, DHLG and other government agencies should participate. (BR.5 and BR.6)*

28. *The combined regional research facilities of CSIRO, QDPI, UCQ, DBIRD and other public and private agencies should be directed towards projects/programs that have the potential of producing economic benefits for the CQ Region. (BR.5 and BR.6)*

This requires cooperation that is open, alive and active and has to concentrate on turning intent into action. What is needed is genuine strategic alliances without hidden agendas or defensive sub-strategies.

29. *Organisations such as CSIRO, QDPI, UCQ, DBIRD and other government departments should be in a position to provide a combined effort to promote the development of the CQ Region. A unified approach by these lead agencies would provide a great boost to business and community confidence. (BR.5 and BR.6)*

At present there is too much fragmentation; there is no unified vision; there are no broad development outlines to follow.

30. *Research should be carried out as to the feasibility of making more effective use of abandoned mining site spoil heap rehabilitation (overburden replacement) reforestation funds. (SS 2.4.6, p. 61 and BR.4)*
31. *The CQ business community should be encouraged to gain a greater share in supplying the victualling needs of mining communities and thus gain a greater share from the current expansion of mining activity in the Region. (BR.2, BR.4 and BR.6)*
32. *The CQ community should stand behind the Yarraboldy coal briquette project which is set to become a high value-adder to an abundant CQ resource. This project can provide needed employment and skilling opportunities and, importantly, tremendous export potential and a product that satisfies the most stringent environmental standards. (BR.7)*
33. *It is necessary to encourage research into the development of new technologies (and the diffusion of existing technologies) aimed at reducing the global threat posed by Greenhouse gas emissions associated with coal fired electricity generation. (BR.5)*
34. *Research should be undertaken to ascertain the feasibility of commercial water storage/treatment in disused underground and open-cut mines (final voids). (BR.4)*
35. *To support Central Queensland's drive to develop a keen export opportunity awareness, it is necessary to improve the quality of business/commercial performance, including managerial performance, across the Region. The CQ community has expressed strong support for IBECQ, which should be fully recognised as the leading international business agency of the Region. (BR.3, BR.4 and BR.5)*

Attitudes must change to become more development conscious and to develop a global awareness. The media and tertiary education institutions and IBECQ can assist in breaking down parochial mindsets.

36. *Overseas students attending UCQ have the potential of becoming excellent unofficial trade ambassadors for Central Queensland, as well as interpreters and chaperones for visiting trade groups. This opportunity should not be missed. (BR.7)*
37. *The UCQ should set up a Centre for Regional Development Research based at the UCQ City Annexe in East Street. (BR.6)*
38. *The UCQ should develop an external degree course in regional economic development. (BR.6)*
39. *Regular Workshops on Business and Strategic Planning should be organised for LGA Councillors and administrative staff, and RDOs. (BR.6 and BR.9)*

LGAs need a broad planning framework within which to draw up their own plans and strategies. There is a need to *educate* LGAs on the rudiments of strategic planning. LGA councillors/aldermen and administrative staff are being provided with inadequate information on State Government plans and initiatives.

40. *Each sub-region should be encouraged to develop and maintain its own economic development strategy within the framework provided by the overall CQ strategy. (BR.7)*
41. *Central Queensland Tourism and Development Organisations should make coordinated and well-prepared submissions for holding mining, transport, regional development, value-adding and export enhancement conferences/symposiums in the Region and should ensure that these conferences are well-organised, enthusiastically promoted, effectively run and professionally hosted. (BR.6 and BR.7)*
42. *The 'CQ Can Do' or 'Can Do in CQ' and  $CQ \times CQ = CQ^2$  (CQ buy CQ) logos should be further developed, as should the 'Clean and Green' label idea. (BR.7)*

43. *DBIRD should assist all LGAs who have not already done so to prepare economic development strategies and strategy implementation plans. (BR.6)*
44. *DBIRD, as the leading regional development agency, should organise public meetings at Rockhampton, Gladstone, Mackay, Emerald and Longreach to encourage the adoption and implementation of the strategy outlined in this Report and to retain community ownership and involvement in the planning process. (Project Manager)*
45. *That DBIRD take the initiative with other government agencies involved in regional development to advance the implementation of the key recommendations of this Study. (Project Manager)*
46. *That DBIRD focus on the specific research agenda identified by this Study to support the various strands of the postulated regional economic development strategy. (Project Manager)*

## 8.2.2 AGRICULTURAL INDUSTRIES

1. *Food producers and processors should combine to form an Agri-food industry.*

### *Advantages:*

- . *More effective marketing.*
  - . *Lower marketing and distribution costs.*
  - . *Cheaper bulk freight rates.*
  - . *Greater cohesion and unity of purpose.*
  - . *Access to more markets.*
  - . *Higher international profile. (SS 7.4.2, p. 244)*
2. *The fast growing economies of Northeast Asia (and Southeast Asia) offer Central Queensland tremendous prospects as a quality brand (the Clean and Green Label) buyer of processed foodstuffs. As a matter of urgency, the results of any research that has been conducted on these markets should be conveyed to CQ growers within a strategic planning, action-oriented context. (BR.6)*



3. *Within the food industry, integration, both domestically and internationally, should be encouraged and market specific, semi-prepared supermarket type food items should be processed and packaged prior to export. (BR.7)*
4. *Information on overseas consumer requirements acquired by Australian or Queensland trade missions or overseas offices should be made available to leading CQ development bodies and export agencies for dissemination to potential suppliers and producers. (BR.8)*
5. *The potential for exporting a range of beef products such as (i) 'beef jerky'; (ii) dried beef products for meal preparation (restaurant and home) that can be sold through food retail outlets (including supermarkets); and (iii) balanced nutrition packs (beef and grain) for famine relief purposes should be thoroughly researched and the appropriate follow-up action taken in each case. Agribusiness should have an active involvement in researching the establishment of a range of high value-adding, small-scale processing industries for such niche markets. (SS 2.5.8 (iii), p. 69)*
6. *There is a need to commence negotiations now within the Agri-food sector with a view to advantageously pooling the resources of the separate industries (veal, beef, grain, lamb, mutton, kangaroo, game, seafood, aquaculture products, fruit, vegetables and dairy products) if a 'big push' is to be mounted to gain a foothold in the fast-growing Northeast (and to a lesser extent, Southeast) Asian markets. Popularising the 'Clean and Green' label and embracing the National Farmers' Federation (NFF) Agri-food Industries Strategy may be important ingredients for success. (BR.6)*
7. *More food processing is desirable to retain income within the Region and to open up more job opportunities. To this end, more emphasis should be placed on value-adding to the final consumption stage, which will open up more domestic outlets as well as overseas niche markets. It is important to avoid developing an export 'cargo cult'. (BR.6)*
8. *The fast growing Northeast Asian markets, including Taiwan, South Korea, North Korea and the People's Republic of China, as well as Japan, should be set as target markets and, to a lesser extent, Southeast Asia, including Singapore, Malaysia, Indonesia and Thailand. (BR.5 and BR.6)*

9. *The potential for developing joint venturing arrangements with Northeast Asian partners to develop value-adding ventures in wool, cotton and hide processing should be explored. There is scope for developing a major CQ pet food industry with an abundance of the necessary ingredients available. (BR.5 and BR.7)*
10. *Central Queensland has to take advantage of being comparatively pollution-free in marketing its food products and must be diligent in protecting that status. (BR.4)*

### 8.2.3 TOURISM

1. *Develop a Region-wide strategy for tourism promotion with the primary emphasis on the domestic market. Investigating discounted air charter arrangement possibilities and packaging and promoting the attractions of the region has to be well-researched, carefully planned and supported by finely pitched promotions to selected market segments. (BR.4 and BR.5 and SS 6.2 (1), p. 224)*
2. *The Central Queensland Super-Region should be packaged and promoted as a distinctive, unified spatial entity. The main attractions of all five sub-regions (natural and created) should be given equal coverage in a CQ promotional brochure. Tastefully designed coloured maps for each sub-region and the CQ Super-Region should be produced. (BR.4 and BR.7)*
3. *Tourism events across the CQ Region should be planned to avoid overlap and, after effective consultation and collaboration, an attractive promotional calendar of such events should be produced as a cross-regional cooperative exercise. (BR.6)*

See Sub-Sections 2.2.5 and 2.2.6 for tourism-related recommendations for the combined Central West and Central Highlands Areas and Miriam Vale Shire (Gladstone Area) respectively.

### 8.2.4 INFRASTRUCTURE

1. *Natural gas supply should be extended to Mackay to facilitate the economic growth and industrial integration of the Region. (BR.4 and BR.5)*

2. *Rail electrification should be extended to Mackay to improve freight and passenger services and promote tourism and the commercial/industrial integration of the Region. (BR.4 and BR.5)*
3. *The integration of modes and considerable improvement of the transport system is needed in order to provide a streamlined freight forwarding network. (BR.4, BR.5 and BR.6)*

This could well be a means of establishing a competitive advantage in some product lines. It would certainly enhance the attractiveness of Central Queensland from an investment standpoint.

4. *A Study should be conducted to develop a coordinated, multi-modal transport/freight forwarding network for the Region, including transportation hubs at Barcaldine, Emerald, Mackay, Rockhampton and Gladstone. (BR.7 and BR.8)*

A TQM approach is needed as, in order to achieve substantial cost efficiencies, the entire network needs to be properly integrated and the necessary technology installed. As far as Central Queensland is concerned, this is a catch-up situation as the technology exists but the local operational expertise needs to be developed.

#### 8.2.5 CENTRAL WEST AND CENTRAL HIGHLANDS

##### Manufacturing

1. *Opal value-adding (Winton) and sapphire and other precious stone value-adding (the Gemfields) could benefit from joint promotion and marketing (including auctioning) activities. Access to a duty-free outlet with guaranteed regularity of supply and quality maintenance could provide an anchor for these industries. (BR.2 and BR.6)*
2. *There is strong potential in the Central West for the development of a kangaroo meat industry with a potentially lucrative market in the Peoples' Republic of China. This needs to be well researched, including the establishment of by-product outlets. (BR.2 and BR.6)*

3. *The Central West should be encouraged to develop small-scale manufacturing activities (cottage industries) using traditional commodities (wool and hides) to produce special Australian products for targeting tourist and other boutique markets such as duty free shops. (Thorough market research is necessary.) (BR.2 and BR.6)*
4. *Establish one major recycling depot in the Central West and negotiate backloading rates to the coast for palletised recyclables. (BR.2)*

### **Tourism**

1. *As tourism offers the greatest opportunity for economic diversification in the Central West and parts of the Central Highlands Sub-Regions, a Study should be commissioned to determine the most effective way of developing and promoting this industry for the combined sub-regions. (BR.2 and BR.6)*
2. *The Central West and the Central Highlands should collaborate in promoting 'The Outback - the Real Australia' tourism image and developing the 'historical theme' (i.e. QANTAS, Waltzing Matilda, Hall of Fame, Barcaldine, Blackall, Captain Starlight). (BR.2 and BR.3)*
3. *An outback festival should be held on an annual basis in the Central West and should be given Region-wide promotion and support. (BR.7)*
4. *Rural centres that have experienced population decline should use the availability of cheap housing as a means of attracting interstate migrants, including pensioners and unemployed persons. (BR.4)*

### **Infrastructure**

#### **(a) Immediate**

1. *Develop Barcaldine as a transport interchange/hub. (BR.2)*
2. *A Study should be conducted to put a dimension on the extent to which the Central West is transport-disadvantaged and to put forward potential strategies for alleviating the problem. (BR.2 and BR.6)*

Rather than trying to mount a case for freight subsidisation incentives, it would appear to be more productive for remote areas like the Central West to make better use of existing transport infrastructure by adopting modern storage and freight forwarding practices, attaining better capacity utilisation and negotiating as a block for cheaper freight rates, including backloading rates.

(b) **Long Term**

1. *Rail electrification should be extended from Emerald to Longreach to improve freight and passenger transport services on this key route between the Central West and the Coast, including access to port facilities for export products. Rail tourism excursions would also benefit. (BR.2 and BR.6)*
2. *The Plenty Highway should be developed to link Longreach with the Northern Territory and improve tourist and commercial mobility. This would provide an essential link with the Matilda Highway and increase tourist length of stay and expenditure in the Central West. (BR.2 and BR.6)*

8.2.6 **MIRIAM VALE SHIRE**

**Tourism**

1. *The Agnes Water/Seventeen Seventy area should be the prime focal point of Miriam Vale Shire's tourism development strategy, and an all-weather jetty should be built at Seventeen Seventy to provide easy access to Lady Musgrave Island and the other southern reef attractions. (BR.9)*
2. *Road access from Baffle Creek to Agnes Water/Seventeen Seventy should be upgraded to enhance tourist (including day tripper) access to the area. (BR.9)*
3. *A road link between Agnes Water/Seventeen Seventy and Turkey Beach (Northeastern Miriam Vale Shire) should be established to provide greater commuter/shopper access to Gladstone and greater tourist (including day tripper) access to the Coral Isles Coast. Such a road would also yield cost savings to produce suppliers to Gladstone. (BR.9)*

4. *The historical Captain Cook theme should be used to promote the Coral Isles Coast and an annual Captain Cook festival should be held at Seventeen Seventy. (BR.9)*
5. *Miriam Vale Shire should set up a tourist information centre on the Bruce Highway and a locally staffed (weekends only) tourism information centre in the Agnes Water/Seventeen Seventy area. (BR.9)*
6. *The Bruce Highway signposting of Agnes Water/Seventeen Seventy should stress the cost and time saving in accessing the Coral Isles Coast (southern reef) instead of proceeding further north (Whitsundays, Cairns). (BR.9)*

### 8.3 LONGER TERM CONSIDERATIONS

1. *Should Gladstone experience significant population growth over the next decade, consideration should be given to the establishment of a rapid transit rail link between Rockhampton and Gladstone to encourage commuter travel and to promote stronger commercial linkage between the two centres. (BR.4 and BR.6)*
2. *As Rockhampton Airport is prone to flooding, consideration should be given to the construction of a new airstrip up to International Charter Status to accommodate trunk route and charter aircraft up to B737 and B727-200 class. (SS 2.15.5, p. 121)*
3. *The Fitzroy River should be dammed behind the coastal ranges to permanently control the sporadic flooding problem and provide water for irrigation for expanded horticultural activity. (BR.5)*

The adoption of Recommendation 3 would obviate the need for Recommendation 2.

4. *Consider the development of Port Clinton and environs as an enterprise zone specialising in downstream value-adding to natural fibres (wool and cotton) and hides. This could involve a multinational joint venture where CQ has the raw materials, Korea (say) the capital, and the Peoples Republic of China the expertise. It may involve contracting Chinese workers with the necessary skills to work in the enterprise zone or may*

*involve sending the partially processed product offshore for intermediate processing and returning it to CQ for the final end-use finishing.* (Project Manager)

5. *An alternative development strategy for the Port Clinton Area would be to dedicate the area to food processing/packaging activities maintaining an environmentally clean ambience for processing and handling Agri-food products and establishing the integrity of the 'Clean and Green' label.* (Project Manager)

[Should Scenario 5 become the preferred strategy, the activities outlined in Scenario 4 could be located in the Port Alma Area, Curtis Island, or towards the northern end of Miriam Vale Shire.]

#### 8.4 IMPLEMENTATION STRATEGY: SOME SUGGESTIONS

The Recommendations listed in this Section have been selected as the more strategically significant ones arising out of the Study.

Some of them refer to issues where the relevant organisations in a position to implement them are, in a sense, autonomous, such as the UCQ and Miriam Vale Shire Council.

Many, however, can be incorporated into a DBIRD Implementation Strategy. (In fact some, such as investigating the feasibility of a mutton abattoir in the Central West, have already been progressed by DBIRD-Central.)

The particular recommendations that would appear to fall within the ambit of DBIRD's sphere of influence are contained in Sub-Section 8.2.1. However, some recommendations come within the direct influence of DBIRD-Central.

#### 8.5 SUGGESTED DBIRD ACTION

DBIRD, as co-sponsor of the Study, has a vested interest in its principal outcomes. The following are suggestions only. The development of an Implementation Strategy proper should not precede acceptance of the findings and Recommendations of the Study.

##### **Re Recommendation 2**

DBIRD could provide direction and financial support towards developing such a strategy.

**Re Recommendation 3**

This would require some change in emphasis for DBIRD.

**Re Recommendation 4**

DBIRD officers are aware of this and Gladstone DBIRD office has achieved it.

**Re Recommendation 7**

DBIRD officers are aware of this and could support the recommendation.

**Re Recommendation 8**

DBIRD and QDPI's Agribusiness need to join forces here. Facilitating value-adding to any commodity should be perceived as being DBIRD's area of responsibility. If QDPI's Agribusiness also perceives this as its area of jurisdiction in the case of agricultural products, a pooling of expertise would seem to be more appropriate and productive than boundary conflict.

**Re Recommendation 10**

The meeting of RDOs at Emerald, with DBIRD-Central involvement, on 18 and 19 March will advance this Recommendation.

**Re Recommendation 11**

DBIRD-Central is in a position to make a recommendation on this after the Emerald meeting on 18 and 19 March.

**Re Recommendation 13**

Such a Study would follow logically from this Strategy Study. DBIRD-Central should support the Recommendation. Such a Study would help in overcoming some of the jurisdictional boundary problems that still exist.

**Re Recommendation 17**

This kind of information is essential if RDOs are to perform their jobs effectively. DBIRD can make representations that may assist in improving the information flow.



**Re Recommendation 19**

Although DBIRD seems to be phasing out its involvement, support for the Recommendation would help in drawing notice to a problem area.

**Re Recommendation 20**

DBIRD can assist in addressing this problem in consultation with the Department of Housing and Local Government (DHLG) and the relevant LGAs.

**Re Recommendation 21**

DBIRD, in consultation with the DHLG and the relevant LGAs, can improve planning in the housing/residential land supply area.

**Re Recommendation 23**

This should be done immediately. The lists are contained in Background Report No. 8 (BR.8).

**Re Recommendation 24**

DBIRD-Central should have an interest in supporting this Recommendation, although only some issues affect DBIRD.

**Re Recommendation 26**

Many of these issues have direct relevance to DBIRD as the lead regional economic development agency.

**Re Recommendation 27**

DBIRD could take an active role in organising and running these Public Workshops.

**Re Recommendation 28**

DBIRD can take the lead as to some extent it already has with QDPI support in encouraging this unified approach to regional issues.

**Re Recommendation 29**

This is part of the total government approach to regional development in which DBIRD has a pivotal role.

**Re Recommendation 35**

DBIRD is already actively engaged in this activity and has funded an IBECQ Pre-feasibility Study.

**Re Recommendation 38**

DBIRD could initiate action on this Recommendation immediately.

**Re Recommendations 39 and 40**

This is essential if sub-regions are to maintain their interest, commitment and integrity.

**Re Recommendation 41**

DBIRD can actively support these initiatives which will provide new avenues for DBIRD input.

**Re Recommendation 42**

These ideas came out of Workshops and discussions in which DBIRD-Central officers actively participated. Advancing them further would no doubt attract DBIRD-Central support.

**Re Recommendation 43**

DBIRD-Central, now that the CQ RED Strategy Study has been released, can encourage all LGAs who have not already done so to seek funding assistance for the preparation of these economic development strategies.

**Re Recommendations 44, 45 and 46**

DBIRD-Central officers have already indicated their support for promoting the strategy once given the 'go ahead' by the Minister.

## 8.6 FUTURE RESEARCH AREAS

Several areas of further research have been identified. Most important among these are:

1. Develop a multi-purpose marketing/promotional strategy for the CQ Region. (Rec. 2, SS 8.2.1, p. 258 and Rec. 12, SS 8.2.1, p. 260)
2. Commission a Study to ascertain how to most effectively implement a total government approach to regional economic development. (Rec. 13, SS 8.2.1, p. 260)
3. Develop a Region-wide multi-purpose water supply, storage and utilisation management strategy. (Rec. 16, SS 8.2.1, p. 260)
4. Develop a multi-source energy plan to the year 2010. (Rec. 18, SS 8.2.1, p. 261)
5. Develop a Region-wide twenty year industrial/commercial land plan (Rec. 19, SS 8.2.1, p. 261)
6. Develop a Region-wide residential housing plan. (Rec. 21, SS 8.2.1, p. 261)
7. Research making more effective use of funds provided by mining companies for spoil heap rehabilitation. (Rec. 30, SS 8.2.1, p. 264)
8. Research feasibility of commercial water storage/treatment in final voids after cessation of mining activity. (Rec. 34, SS 8.2.1, p. 264)
9. Commission a Study to develop a coordinated multi-modal transport/freight forwarding network for the CQ Region, including the establishment of several transportation hubs at key locations. (Rec. 4, SS 8.3.4, p. 269)
10. Commission a Study to determine the most effective way of developing and promoting tourism in the Central West and Central Highlands Sub-Regions. (Tourism Rec. 1, SS 8.2.5, p. 270)
11. Conduct a Study to put a dimension on the extent to which the Central West is transport disadvantaged, and to identify potential ways of alleviating the high transport cost problem. (Infrastructure Rec. 2, SS 8.2.5, p. 270)

## 8.7 CONCLUDING COMMENTS

The above recommendations derive from extensive consultation with a representative cross-section of the CQ community. They represent a CQ viewpoint on the many issues canvassed, which were themselves identified through discussion and consultation.

These recommendations are predicated on the acceptance of the present State Government's philosophy of working with local communities and encouraging them to take an active role in developing and driving the regional development agenda.

Nevertheless, it is accepted that regional viewpoints, however sincere and well-informed, may need to be tempered within a State-wide forum.

Many of these recommendations relate to issues that are the responsibility of DBIRD, QDPI, DHLG, QTTC and other agencies.

A total government approach to the set of recommendations as a whole, and many other policy pointers not enshrined in these Policy Recommendations, but contained in the supporting Background Reports, would be the preferred outcome.

However, DBIRD-Central, with the appropriate Head Office and government approval, as co-sponsor of this Study should initiate negotiations with other Departmental Regional Directors towards advancing those initiatives, involving more than one department, covered in the body of recommendations. Particular attention should be directed to those that are deemed feasible and conducive to the economic advancement of this Region.

Recommendation 1 is the most important of all.

If the only outcome of this Study is the adoption of Recommendation 1, the exercise will have been worthwhile.