

Melbourne and Regional Areas



Technical Report 5

PLANNING MELBOURNE FOR THE 21ST CENTURY



Message from the Ministers

By world standards Melbourne is a great city. The Bracks Government is committed to maintaining Melbourne's reputation as a highly liveable city and an attractive investment destination. The Government has embarked on the preparation of a Metropolitan Strategy to set a clear vision for Melbourne's future liveability, prosperity and, importantly, its long-term sustainability.

The preparation of the Metropolitan Strategy is drawing on inputs from a wide range of sources. It is vital that the strategy has a sound research and information basis. It is also especially vital that community aspirations for the city's future be well understood. The key inputs to the strategy therefore include both a wide ranging public consultation program as well as a series of research or technical papers on issues that may have an impact on Melbourne's future.

The Bracks Government has given an undertaking to make as much of this background information as possible widely available to stimulate discussion about the future of Melbourne.

This report is one of the technical reports commissioned by the Department of Infrastructure, which we hope will stimulate feedback. At this stage content and recommendations are only the views of its authors and not necessarily the views of the Government. The Strategy is still in its early stages of development and we remain open to hearing what the broader community would like it to encompass.

We encourage you to read this and other technical reports and, should you wish, to make your views known about the future of Melbourne by contacting us on:

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Melbourne and Regional Areas

Discussion Paper for the Melbourne Metropolitan Strategy

This paper has been produced as a background discussion document for the Melbourne Metropolitan Strategy Project. The contents of this paper do not necessarily represent the position of the Department of Infrastructure or its employees or of the State of Victoria.

Any representation, statement, opinion or advice, expressed or implied in this paper is made in good faith but is not intended to be nor should be relied upon by any person.

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Summary

- The continuing restructure of the Victorian economy is further concentrating economic and related activity in Melbourne and major regional centres.
- Those major regional centres close to Melbourne, ie. Geelong, Ballarat, Bendigo, Shepparton, and to some extent, the Latrobe Valley, as well as those on the Sydney-Melbourne corridor (Shepparton, Wodonga) are increasing their economic role and are becoming more interactive with Melbourne across a range of activities.
- The ability of each centre to take advantage of the strengthening relationship with Melbourne is uncertain and depends greatly on resolving issues specific to each centre. The combined effect of population and employment change on the economies of the main regional centres, especially concerning major infrastructure provision, is an issue.
- Population growth and residential development is continuing to occur at a rate above the State average in areas on the fringe of the metropolitan urban area, as well as in local government areas adjacent to the fringe in regional Victoria and adjacent to the major regional centres (except in the Latrobe Valley).
- Metropolitan Melbourne will continue to grow and develop, and the search by people for alternative areas to live close to the metropolitan area will probably continue as long as existing economic trends continue. Most people who seek to live in this fringe and the larger ex-urban area are economically tied to the metropolitan region for employment and for social, cultural, commercial and recreational services.
- The main issues in fringe and ex-urban areas appear to be:
 - The impact of rural residential development on the quality of water catchments, that are predominantly in private ownership and service regional towns and cities
 - The impact of rural residential development on the ability to use major sand and mineral resource extraction areas that are needed for building and development
 - Land use conflicts arising from the industrialisation of agricultural production and the increasing presence of rural residential development in rural areas
 - The combined impacts of changes in population growth and development brought about by changes in transport facilities and services along major transport corridors between Melbourne and regional centres.
- There are grounds for considering special planning measures to deal with longer term concerns for agricultural production in areas in or adjacent to the metropolitan region as a result of direct conversion of land to urban uses and from the general effect of metropolitan development on raising development expectations.
- The importance of the metropolitan transport system to the development of regional cities and towns means that the planning and management of the metropolitan system and corridors between Melbourne and the regional centres needs to take account of regional requirements, particularly with respect to freight, general business and tourist movements.
- The possibility of attracting new development to the regional centres as part of a growth management strategy for Melbourne warrants further investigation particularly in light of the recent intention to introduce fast train services between the closest centres and Melbourne.
- Planning for the metropolitan region's growth and development in isolation from the surrounding regional areas is possible but highly undesirable. There are grounds for considering a new approach to the development of metropolitan and regional strategies based on a network city-regions approach.

Introduction

Melbourne has a crucial role in the growth and development of the whole of Victoria and south-east Australia. The city is both an administrative and economic centre as well as a hub for communication and transport. Furthermore, it is by far the largest population centre in Victoria with 70 percent of the State's residents living in the metropolitan area.

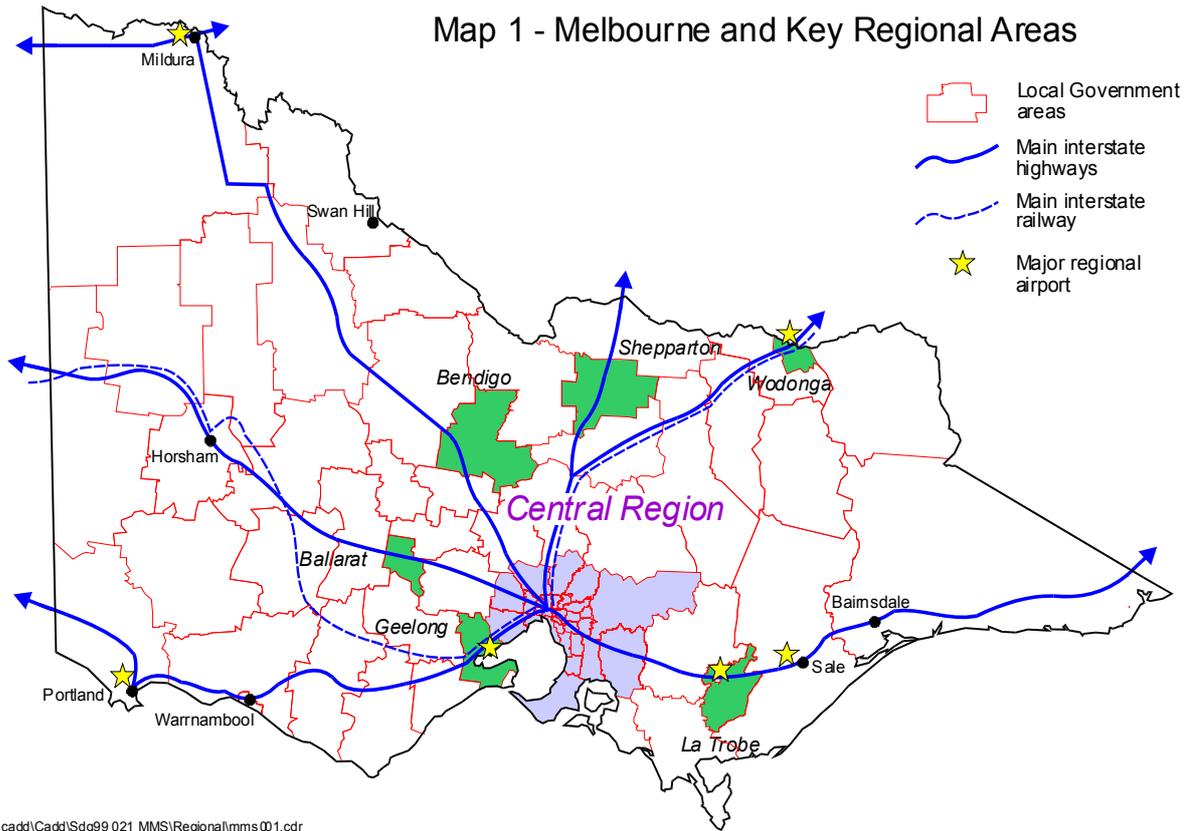
The importance of Melbourne is underscored by the relationship the capital city has with the regional and rural areas of Victoria. Regional communities are heavily dependent on Melbourne for many of their goods, services and facilities. In addition, Melbourne has a significant role in the promotion and development of rural products. The State's premier agricultural event, showcasing rural products, is the Royal Melbourne Show. Similarly, the headquarters for prominent rural organisations such as the Country Women's Association and the Victorian Farmers' Federation are located in inner Melbourne while most rural agricultural produce is delivered to Melbourne markets or transported to the city for export through its port or airports.

There is, though, a co-dependence between Melbourne and its hinterland. Many agricultural, manufacturing, educational and service industries are located in regional centres and support or feed into Melbourne industries and communities.

This discussion paper will highlight the exact nature of the inter-dependencies between Melbourne and Victoria's regions and detail the issues arising from the changing nature of that relationship. In particular, the paper intends to generate a greater understanding of whether, and to what extent, those issues may need to be addressed through a strategic planning process.

While it is recognised that the whole of Victoria outside of Melbourne has some sort of relationship with the capital city, the paper will primarily focus on the area referred to on Map 1 as the 'Central Region'.

Map 1 - Melbourne and Key Regional Areas



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The Victorian Economic System

The dominance of Melbourne in Victoria is reflected in the fact that the State economy is heavily reliant on the metropolitan area.

This role for Melbourne in the Victorian economy is not unique within Australia. However, Victoria is a geographically small state, compared to the other mainland states. Therefore, the opportunity for other major centres to develop in competition with Melbourne was and is constrained by geography and proximity to the capital city.

At a national level, Victoria produces about 26 percent of Australia's economic output. In some sectors, such as manufacturing, business services, education, finance and communications, Victorian output is above the national average. Exports of Victorian products and services now comprise about 20 percent of Victoria's Gross Domestic Product, which is above the national average and rising.

The importance of manufacturing to the Victorian economy

Victoria remains a leading centre for manufacturing in Australia, despite significant restructuring of the manufacturing sector during the 1980s. In the 1990s, approximately 17 percent of the Melbourne workforce was involved in manufacturing industries – slightly higher than the rate in Sydney. Goods manufactured in Victoria accounted for about 38 percent of State's total exports (by value) in 1995/96, compared to about 26 percent for agriculture commodities alone¹.

Although regional Victoria has traditionally been strongly represented in the manufacturing sector, employment in all manufacturing industries, with the exception of food processing, declined in the regional areas during the 1991-96 period. Regional Victoria's strengths in manufacturing are mainly located in or around a few major regional centres. Geelong, Ballarat, Bendigo and Albury/Wodonga are well represented in high knowledge content manufacturing industries like motor vehicles and parts, industrial machinery, textiles and clothing. The Shepparton region has a nationally significant concentration of food processing and packaging industries. In fact, food processing accounted for almost half (48 percent) of total Victorian manufacturing turnover in 1993-94.

Importantly, manufactured goods, along with services including tourism, have been the drivers for world economic growth. In turn, this trend has greatly contributed to Victoria's economic performance over the past 15 years.

The Sydney-Melbourne corridor

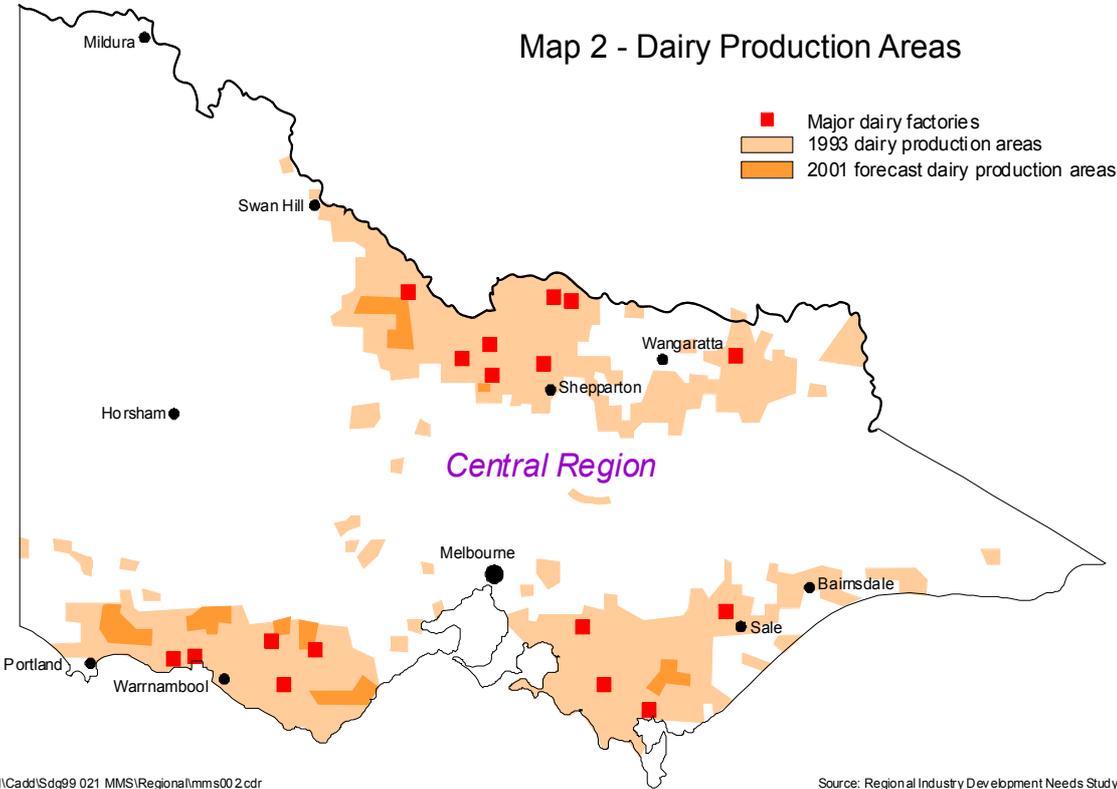
The importance of both Melbourne and Sydney to the national economy has ensured that the corridor joining the two capitals is the busiest in Australia. The corridor carries the most freight of any inter-capital city link, mainly due to the large concentration of economic activity in the two respective

¹ Unprocessed agricultural products are still a major contributor to the Victorian and national economies and the amount that is exported and the dollar value continues to rise, although the proportion of such exports to total value of trade shows slow decline due to declining terms of trade.

capital city regions.² However, it also is noted that considerable economic activity occurs within this national corridor in regions that use part or all of the corridor for movement of goods, services and materials, although, the extent of that interaction has not been comprehensively documented.

Future prospects for production in the corridor are favourable. The dairying, horticulture and wine industries appear to have some of the best growth prospects. Significant parts of the dairying and horticulture industries and associated downstream processing plants, as well as significant wine production regions, are located in the Sydney-Melbourne corridor or in adjacent regions that have relatively easy access to the corridor, such as west Gippsland. (see Maps 2 & 3)

This national corridor physically comprises mainly the road and rail links north of Melbourne through Albury/Wodonga to the Australian Capital Territory (ACT) and Sydney, as well as the air routes between Melbourne, Wodonga, Canberra and Sydney. For some types of freight, the sea link along the eastern seaboard is vital. The road link through Gippsland is of significantly lesser importance to the movement of people and goods between the two nationally important regions.

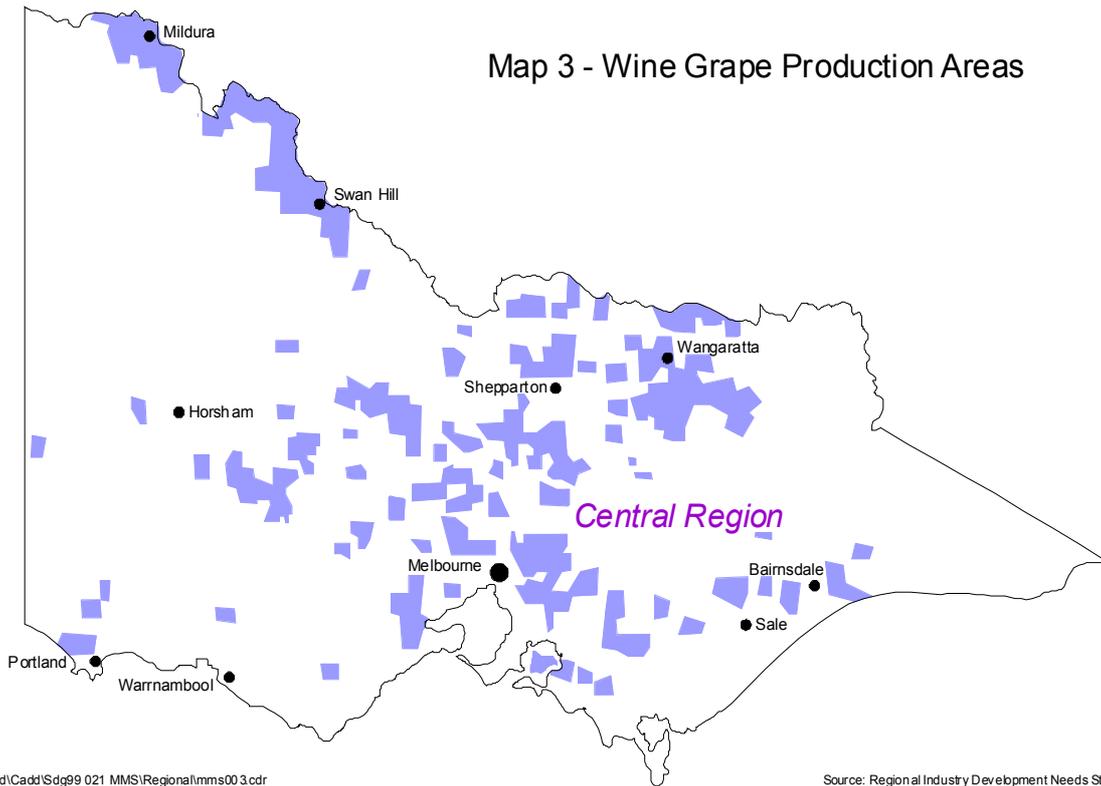


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Source: Regional Industry Development Needs Study, 1997

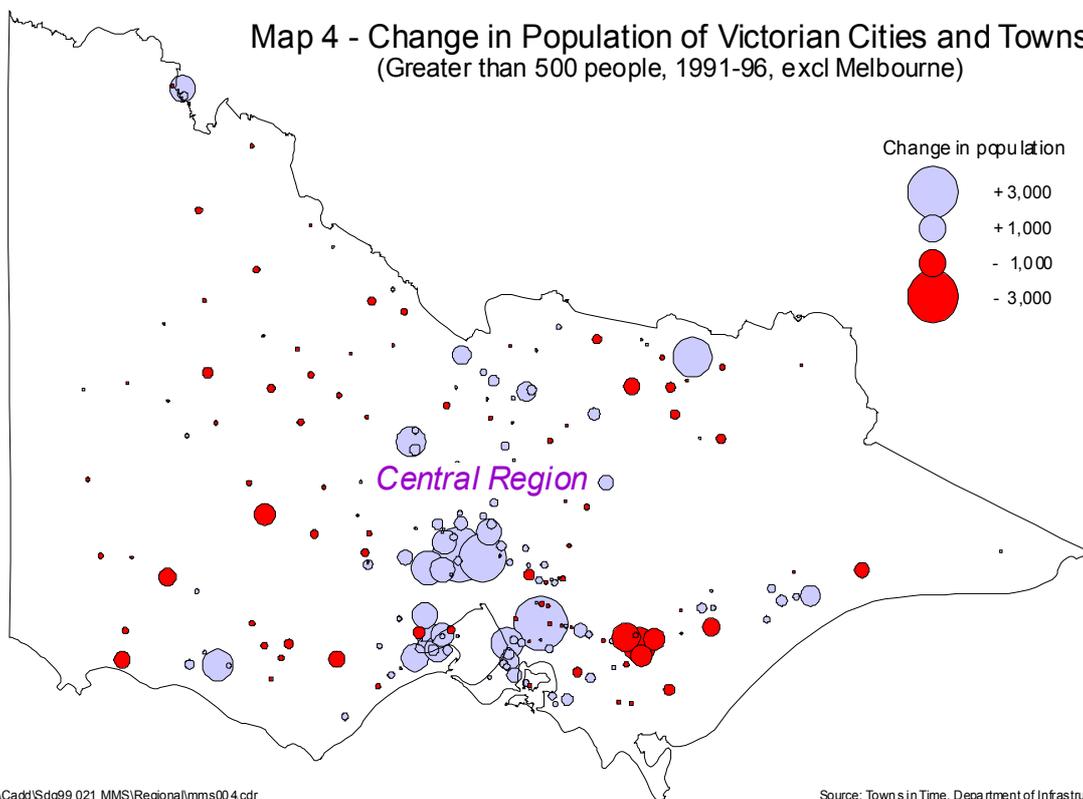
² The Sydney economic region for this comparison includes Sydney, Newcastle and Wollongong, and the Melbourne region Melbourne, Westernport and Geelong. (BTCE, 1993, P.9)

Map 3 - Wine Grape Production Areas



There is little coincidence in the fact that most of the economic and population growth regions within Victoria exist primarily on or beside this national corridor. Over 80 percent of the State's population live and work in the 'Central Region' served by the corridor and most of Victoria's population growth since 1947 has occurred in this region (see Map 4).

Map 4 - Change in Population of Victorian Cities and Towns
(Greater than 500 people, 1991-96, excl Melbourne)



The importance of a location on the Sydney-Melbourne corridor is reflected by a recent National Institute of Economic and Industry Research (NIEIR) study of *Economic Strengths in Regional Victoria*. Among the study's conclusions was that:

“Wodonga stands out as having perhaps the most diversified regional export base of the major Victorian non-metropolitan urban centres...The location of Wodonga on the Hume Highway is a significant drawcard, with its major freight and tourist traffic volumes.”

The NIEIR study also noted that regions astride major interstate transport routes that provide high quality access to and from markets have advantages over regions that are not on such routes. As Melbourne is the major market for goods and services produced in Victoria, as well as a major national gateway for exports and imports, high quality links into and out of Melbourne confer competitive advantages for some regions and regional centres.

Therefore, the issue of providing, maintaining and protecting these important linkages between Melbourne, the regional centres and interstate markets is vital.

Regional Centres

Regional centres have been able historically to adapt to changing economic fortunes and the impact of new technologies. During the early to mid 1800s, regional communities were outposts of the main economic and political centre (Melbourne) and predominant industries revolved around the extraction of resources such as gold. Then, as European settlement of the regions increased and agricultural and other resource-based industries proliferated, rural towns and cities became regional service and administrative centres as well as centres of capital, and foci for the introduction and servicing of new technology. They also played a strong role in local cultural and recreational pursuits.

Economic globalisation has brought with it further changes in the role of regional communities. Centralisation of higher order services, such as health, education, banking and financial services, and retail services, has led to some provincial cities attaining economic advantages. These advantaged centres have had higher than average population growth at a time when some rural areas and smaller towns were declining in population.

In 1996, the eight largest regional centres³ had 12.6 percent of the State's population or more than 41 percent of regional Victoria's population (over 534,000 persons). Of these eight cities, six of them are in or adjacent to the Sydney-Melbourne corridor or 'Central Region' (see Map 1). The economic roles of the other two centres - Warrnambool and Mildura- appear to be less influenced by Melbourne, due to distance, and more related to regional service centre functions.

The six cities in the 'Central Region' have received advantages from changes in the Victorian economy in the past two decades. These changes include:

- The rapid restructuring of the economy from one based on raw materials and basic manufacturing towards one concentrating on services and high value-added manufacturing, and focused on export markets. The broader economic and service base of most larger centres was able to take advantage of this change
- Significant investment in dairy, horticulture and wine industries that are located near these large centres
- Micro-economic reform in government and private service delivery leading to centralisation of delivery points in the larger centres
- Significant infrastructure investment in major State and national road and rail facilities, primarily in the corridors radiating out of Melbourne
- The introduction of new telecommunications facilities and services, which are of a higher quality and capacity closer to Melbourne and in the Sydney-Melbourne corridor.

The impact of these changes on each of the cities and their surrounding regions, while positive, has been variable. Analysis of census data on the industry of employed persons, building activity data, and major recent investments found that during the period 1991-96:

- All regional centres, except the Latrobe Valley, had growth in their workforce
- All regional centres lost employment in public administration/defence - in percentage terms the greatest change was in Bendigo

³ Ballarat, Bendigo, Geelong, Latrobe Valley, Mildura, Shepparton, Warrnambool and Wodonga.

- Manufacturing employment increased significantly in a number of centres, notably Ballarat, Bendigo, Shepparton and Mildura (from a small base) while Geelong retained a major strength in that sector
- Agricultural employment increased in and around most centres
- Construction activity increased in all centres other than the Latrobe Valley
- Wholesale and retail trade investment and employment growth was strong, particularly in Warrnambool, Albury/Wodonga, Mildura and Bendigo
- Finance, property and business services, together with recreational, personal and other services, were the consistently best performing employment sectors in percentage terms. All centres experienced at least a 22 percent increase in these sectors and many increased their employment by more than 50 percent in recreation, personal services
- Bendigo showed strong employment growth in the communications sector
- The community services sector is very important in Ballarat and Bendigo - reflecting their regional service role.

Future Relationships and Roles

In the future, it is anticipated that the six centres in the ‘Central Region’ will continue to outperform most other centres in regional Victoria, with the possible exception of Mildura, due to a number of related factors.

Agricultural Base

The continuing drive to lift productivity and expand production for export markets will result in continued investment in new plant and equipment on farms and in industries involved in value-adding. Shepparton, Mildura and Warrnambool, in particular, will benefit from an expansion of dairying and horticulture, as will the Latrobe Valley to a lesser extent (the investment will mainly be in west Gippsland). Geelong, Ballarat, Bendigo, Shepparton and Wodonga will benefit from increased investment in viticulture. In the long term, high commodity prices for agriculture combined with productivity gains from new biotechnologies will help ensure a positive future for these regional centres, if they continue to base their future development on investment in agriculture.

At the same time, though, the shift to more intensive land use for agriculture will bring some farming areas into conflict with other high value land uses.

Higher Order Services

All of the centres will benefit from the clustering of higher-order functions, particularly in education (universities and TAFE colleges), medical services, financial services, and regional cultural facilities such as art galleries. For example, twenty years ago there were no university campuses outside of Melbourne – now all eight regional centres have one or more campuses (see Map 5).

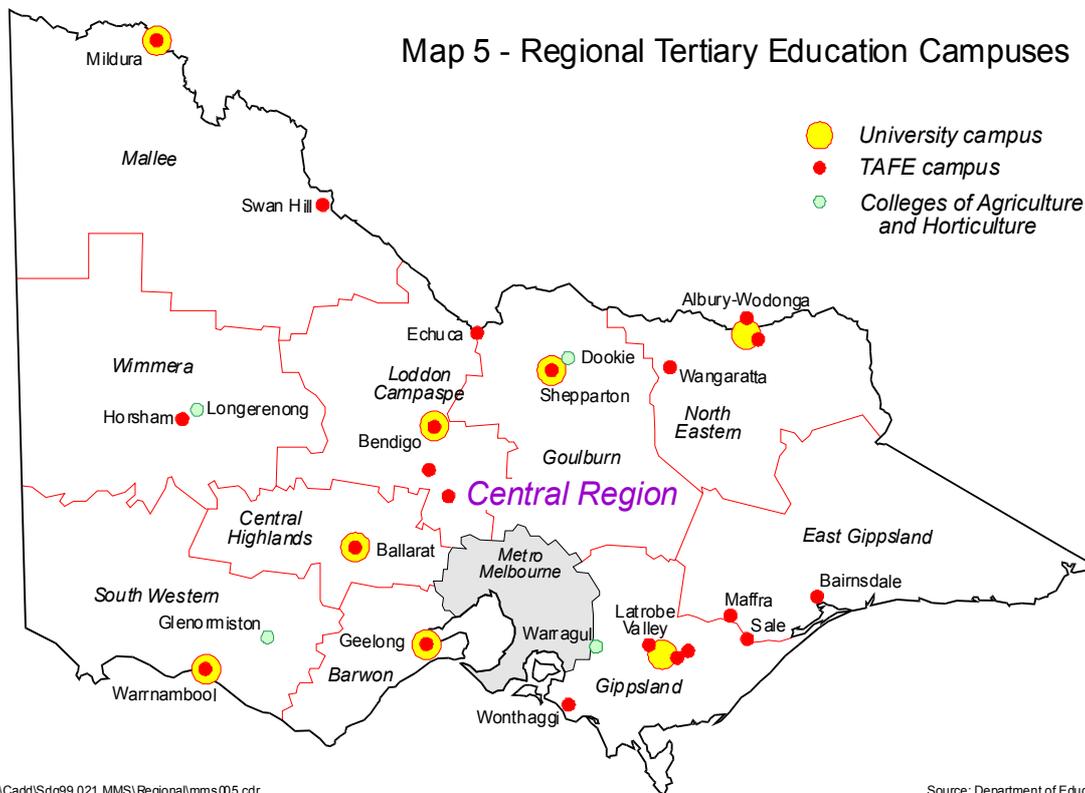
Institutions which are based in Melbourne figure predominantly in the spread of regional campuses with Monash, Melbourne and La Trobe Universities each having strong regional presences. Deakin University, headquartered in Geelong, is also a major educational facility in south-western Victoria. These tertiary educational links with institutions in Melbourne is potentially an advantage for those centres as universities are now competing in the global education market.

Retailing and Warehousing

The role of regional centres in wholesaling and warehousing appears to be declining with these functions congregating in Melbourne. This shift is due to improved transport and communications and the central position of Melbourne in the transport network.

However, in higher-order retailing, the larger regional centres have continued to expand. Larger shopping complexes offer more convenience, comparison and specialist shopping, entertainment and recreational facilities, and higher order commercial services. Regional cities have dominated expansions in retail floor area, through major new projects in supermarkets and discount department stores, in the past decade. This domination has been due in part to the growth of regional cities and partly because of businesses extending their capture of customers within their own trade area to the detriment of smaller centres.

However, Melbourne will continue to dominate the Victorian market in the highest order of specialty retailing and comparison and entertainment shopping.



Tourism

Tourism is one of the fastest growing service industries in Victoria. Over time, Melbourne has developed into a major destination for domestic and international visitors. Most domestic visitors to Melbourne come from regional Victoria.

The Victorian tourism industry has come to realise that the benefits from attracting both interstate and international visitors to Victoria can be increased if tourism packages are developed to extend the period of stay and, hence, the amount of money spent by tourists. Tourism Victoria and tourism operators have acknowledged the substantial advantages of Victoria's compactness, its excellent road infrastructure, and the tourism opportunities available within a few hour's drive of Melbourne. Geelong, Ballarat, Bendigo and Shepparton will particularly benefit from planning and marketing of tour packages.

Significant numbers of people are visiting recreational areas within two to three hour's drive of the metropolitan area. A recent study found that major impacts occur in some townships from day-tripper and overnight short stay visitations. Most of the problems do not occur in infrastructure like roads and sewerage, but in recreational, entertainment, cultural heritage and environmental facilities. The 1997 *Peak Populations Summary Report*, prepared by Urban Spatial and Economic Consultants Pty Ltd (USE) states that the impact is generated by a number of causes:

- Shorter but more frequent trips

- An increase in the demand for hosted accommodation such as Bed and Breakfasts
- An ageing population that is more likely to consume.

Aggressive promotion of regional Victoria by organisations such as Tourism Victoria, Parks Victoria and the Country Victoria Tourism Council has compounded the effects on regional centres.

The impacts vary by region and, most particularly, within local areas in each region. The most significant impacts for each region are:

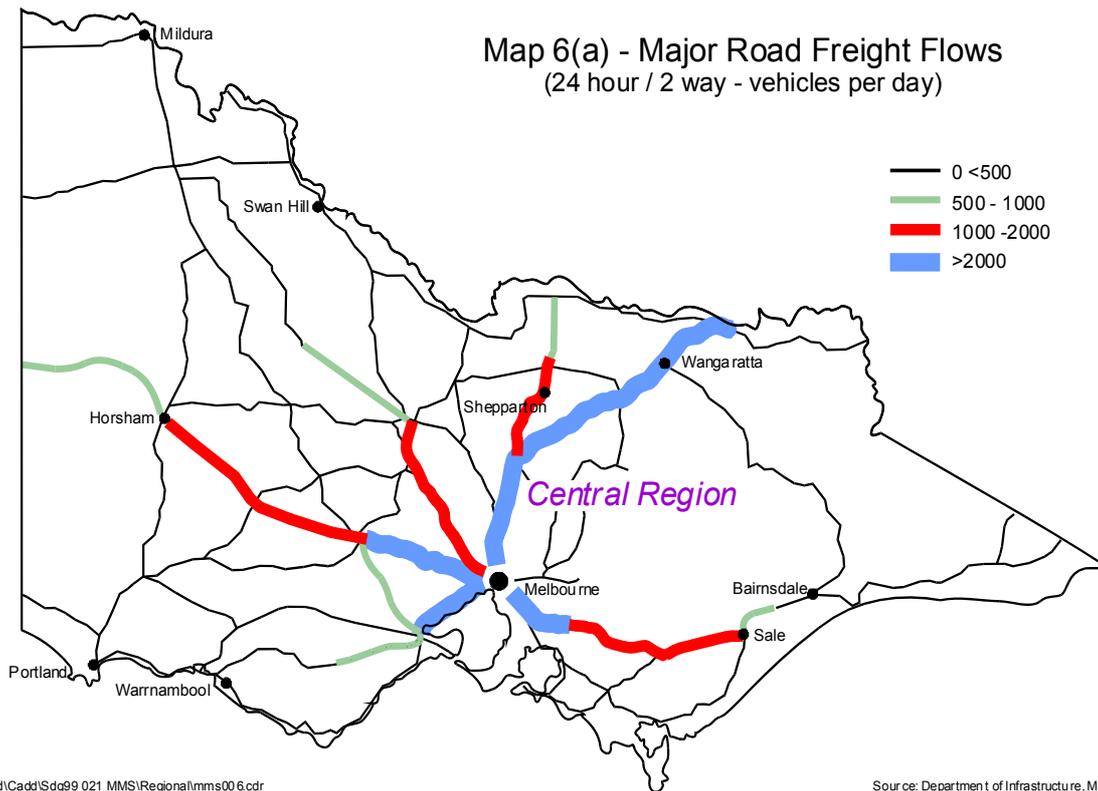
- In terms of total visitation, Geelong, East Barwon, Western, Bendigo/Loddon, Goulburn Central Murray and Gippsland. This is primarily due to visits from day trippers
- In terms of percentage increase over the permanent population, Phillip Island and Yarra Ranges.
- In terms of total visitors accommodated in peak periods (excluding major events) Geelong/East Barwon, Western, Bendigo/Loddon, Goulburn Central Murray and Gippsland. This correlates with regions experiencing high levels of day visitation.⁴

A conclusion of the USE study was that planning for infrastructure provision in these areas needed to be supplemented by more realistic analyses of peak population levels and their implications than was currently undertaken, particularly at local level where most of the impacts are significant.

Transport

Each region has its own economy. However, for a regional economy to remain viable, interaction with other regions is essential through trade in goods and services. The volume of freight traffic between regions provides a good indicator of the level of interaction amongst the various regional economies. In Victoria, the data indicates that two-way road freight volumes are substantially greater for those regions closest to Melbourne than for more distant areas. The road freight flows between regions other than Melbourne are very small and indicate that the regions are more connected to Melbourne, in economic terms, than to each other (see Map 6a).

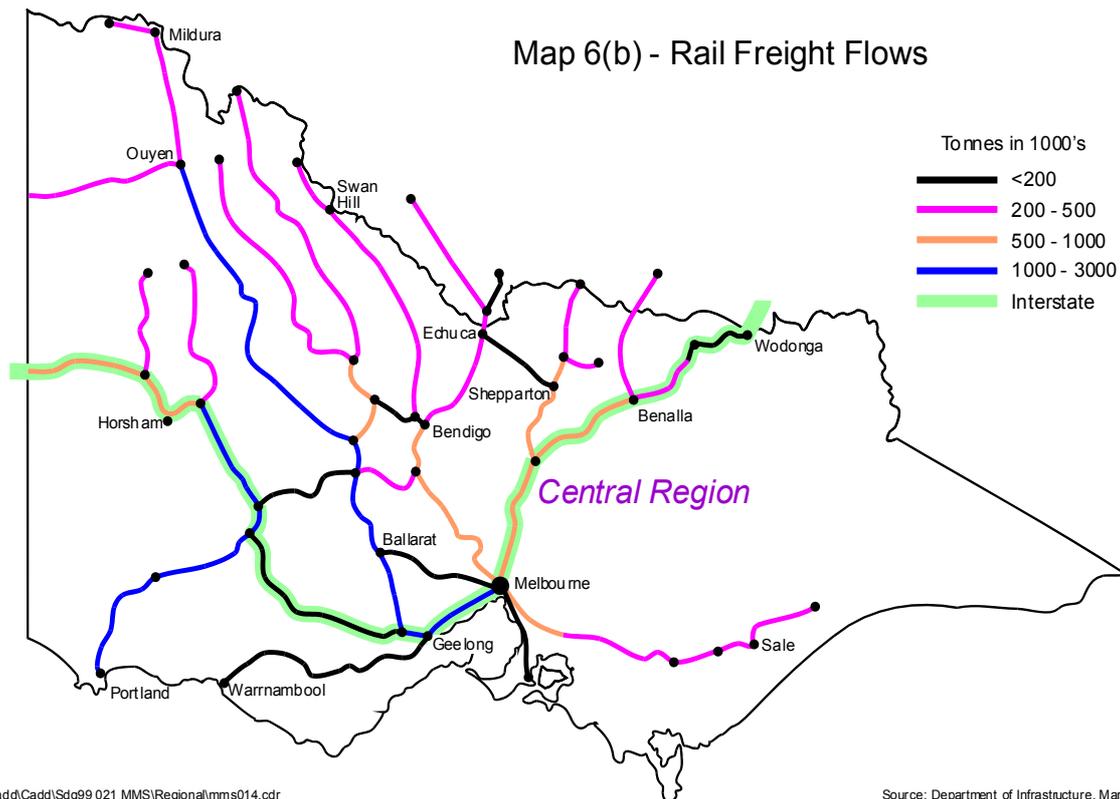
⁴ It should be noted that impacts cannot be appropriately interpreted at a regional level. For example in the Geelong East Barwon region a large proportion of visitation occurs in small townships outside Geelong (ie. Barwon Heads and Torquay) and the percentage increase on these towns is much higher than the impact of the region as a whole.



The rail freight data similarly indicate that, except for the lines to/from Portland, rail freight flows diminish in volume the further away one is from Melbourne (see Map 6b).

Both road and rail networks radiate from a Melbourne hub that also includes the main port and airports for Victoria. Therefore, the efficiency of transport systems in the metropolitan area is of great concern to regional Victoria. VicRoads has found road improvements in Melbourne have led to savings in travel time for transporting manufactured and other goods both to and from regional Victoria.

Projects to improve the regional transport network are often done to enhance economic efficiency and links for national reasons, as in the case of the Hume and Princes Highways, or for metropolitan-regional purposes, such as with the Calder and Western Highways. A strong feature of the Victorian economy is the high quality of the road infrastructure between Melbourne and the closest regional centres, and in the Sydney-Melbourne corridor. There is also the potential to upgrade the existing State rail network to an equally high quality. The compact nature of Victoria lends itself to the development of an efficient freight-handling infrastructure that can also be used for private travel or tourism. The proposed inter-modal freight handling facility planned at Craigieburn in Melbourne's northern suburbs takes advantage of this compactness, complementing other similar facilities in the central region.



The continued upgrading of road and rail infrastructure both responds to economic demand and stimulates growth in that demand. The economic outlook of major regional centres closest to Melbourne and on the Hume Highway corridor has been considerably strengthened by the provision of high quality infrastructure. This infrastructure has improved access to and from these regional centres to national and international trade gateways and the metropolitan market. The economic base of these centres has also been broadened, in some cases by supporting a commuter population.

The regional importance of the Port of Melbourne is also considerable. The Port of Melbourne is the most important port for inbound (more than 50 percent of total imports by weight) and outbound freight (around 50 percent of total exports by weight). The port is also the largest handler of coastal trade (overtaking Western Port). The Port of Melbourne's importance to Victoria (relative to the State's other commercial ports) is forecast to increase over the next 30 years, although issues related to ability to expand in its present location need to be addressed.

Together with Toll Geelong Port (which handles 25 percent of exports and 38 percent of imports) and Toll Western Port (negligible imports and 10 percent of exports), the Victoria's overseas trade links are overwhelmingly focussed on the 'Central Region'. (The Port of Portland handles just 11 percent of imports and exports combined.) The Port of Melbourne's most significant export cargoes, in terms of weight, are petroleum products, dairy products, grain, and fruit and vegetables. Significant import commodities include fertilisers, indicating the strong links with rural and regional Victoria.

Communications

Research based on data from Telstra has found that most outbound phone calls and other telecommunications links from regional Victoria were to Melbourne. The only region where this was not the case was Albury/Wodonga where most of the communication links were direct to the

Australian Capital Territory. Links between regional centres accounted for only 5-10 percent of total communication traffic.

Since 1997 when the data on voice communication was gathered, there has been an explosion in the use of telephone lines for internet use (more broadly, data communications). The internet is capable of connecting producers and consumers in different parts of the world who, in previous times, would probably not make the connection due to the high cost of global advertising for firms. Now any person or company can have a global presence.

It had been thought that this new communications technology would decentralise economic activity, allowing some companies to locate in regional areas. However, the evidence so far is that such technology is reinforcing centralisation of managerial and specialist functions while allowing so-called 'back office' (data processing) functions to disperse more easily to regional centres. For example:

- IBM Global Services Australia's Southern Region Data Centre (SRDC) is now located in Ballarat
- Australian Securities and Investments Commission Information Processing Centre (IPC) is in the Latrobe Valley
- Bendigo has secured various call centres including Telstra installation billings, Powercor customer service, Telstra operator assistance, Bendigo Bank direct banking, Austar telemarketing, and Telstra fault reporting.

Melbourne attracts the introduction of new communications technologies earlier than regional areas, as that is where the traffic volumes are highest and the greatest and quickest return on investment can be made. The introduction of new communications technologies to regional areas then proceeds based on size and potential business use. The centres closest to Melbourne and in the Sydney-Melbourne corridor may benefit by being amongst the first areas provided with new technology.⁵

The Victorian Government contracted AAPT Networks to build, own and operate a wide area network that establishes a single high speed data network connecting over 3,100 Victorian Government sites around Victoria. It is intended to make the network available and marketed to the community and business users. This move, together with private sector initiatives, will enable most sites in regional Victoria to be attached to a high capacity network and could improve the accessibility of rural and small town residents to services provided from Melbourne or the major regional centres for services such as specialised medical services.

⁵ Information on the actual situation in regional Victoria is not readily available. Gaps in information include:

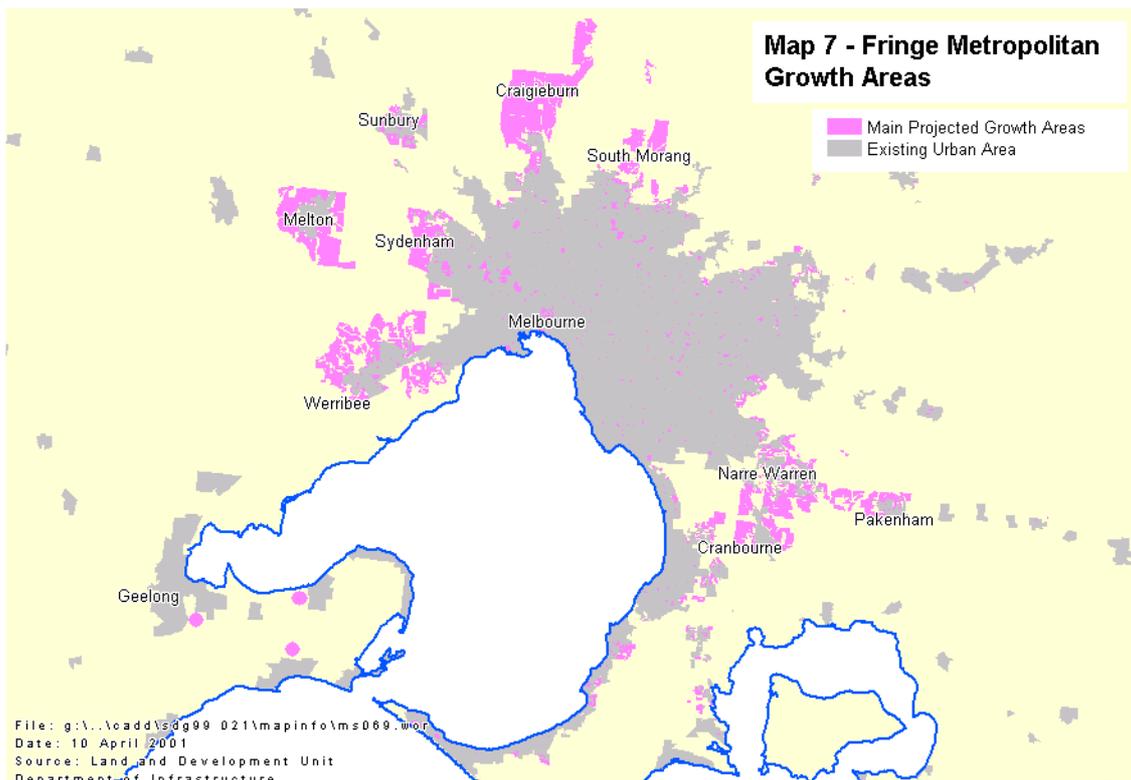
- quality of service for telephone and data communications is not documented
- actual usage of communications technologies is not documented
- costs for access to internet service providers varies and is constantly changing
- no data on microwave, wireless and satellite coverage. (Multimedia Victoria, 1998)

Growth and Development

Since the 1970's, the expansion of the metropolitan area of Melbourne has followed well-defined growth corridors, based on the main radial transport routes that connect the city with its closest regional centres (see Map 7):

- The South Western corridor from Werribee to Geelong
- The Western corridor from Melton to Ballarat
- The North Western corridor from Sunbury to Bendigo
- The Northern corridor from Plenty Valley and Hume to Seymour and Shepparton
- The South Eastern corridor from Cranbourne-Berwick to the Latrobe Valley

The location of the growth corridors on main transport routes is significant. Increased accessibility provided by main roads and rail passenger transport, between new areas and existing employment nodes, help with the land development process, in turn, creating further demand for improved roads and mass transit services.



Residential development in the fringe municipalities of the metropolitan area has catered to Melbourne's expanding population. This outward residential expansion has been followed by considerable development in employment opportunities. Some of these opportunities are the result of firms leaving the central city area to newer premises and some are because of the creation of new, local businesses that are taking advantage of growing suburban population and new market opportunities.

Population projections by the Department of Infrastructure indicate that Melbourne's population is expected to continue to grow, to 3.9 million people by 2021. Based on current patterns, approximately 71 percent of this growth can be expected in the fringe metropolitan municipalities.

Outward growth in population has not, however, been limited to the defined metropolitan area. Considerable development is occurring in the ex-urban areas (ie those municipalities beyond the fringe), which are also on the main transport corridors linking Melbourne to regional centres.

Some of the ex-urban municipalities, particularly to the north and west of Melbourne, have been experiencing population growth rates above the State average. While this growth has been slowing in recent years, people are still moving to these locations for a number of reasons including:

- An attractive lifestyle alternative
- Increased personal mobility facilitated by improved transport infrastructure
- More dispersed employment opportunities and greater employment flexibility
- Relatively low prices (associated with few services or limited infrastructure).

Access to employment in the metropolitan area appears to be a major driver of population growth in the ex-urban areas, particularly in areas near the main highways. Table 1 indicates the proportion of the resident workforce of various ex-urban municipalities and regional centres that work in the metropolitan area.

While the proportion for Golden Plains is small, it is noted that 29.7 percent of the resident workforce of that municipality works in Greater Geelong, and another 33.8 percent work in Ballarat. Hepburn has 23.4 percent of its workforce working in Ballarat; Moorabool has 9.3 percent working in Ballarat; Mount Alexander has 10 percent working in Bendigo; and 11.8 percent of the Baw Baw workforce travels to the Latrobe Valley. This indicates that the major regional centres also have commuter sheds encompassing adjacent municipalities up to 50km from their cores.

Table 1: Proportion and Number of Resident Workforce Working in the Metropolitan Melbourne Region, 1996⁶

Municipality	Number ⁷	Percent
Latrobe Valley	935	3.7%
Greater Bendigo	1181	3.7%
Ballarat	1280	4.4%
Golden Plains	251	4.8%
Mount Alexander	381	6.7%
South Gippsland	740	6.9%
Hepburn	474	9.7%
Baw Baw	1732	11.5%
Greater Geelong	8858	11.7%
Bass Coast	916	11.8%
Murrindindi	1587	24.6%
Mitchell	3595	27.4%
Moorabool	3955	33.2%
Macedon Ranges	7010	36.6%

Source: ABS, *Journey to Work, 1996*

A 1993 study of Geelong found that commuting to Melbourne had been stimulated by:

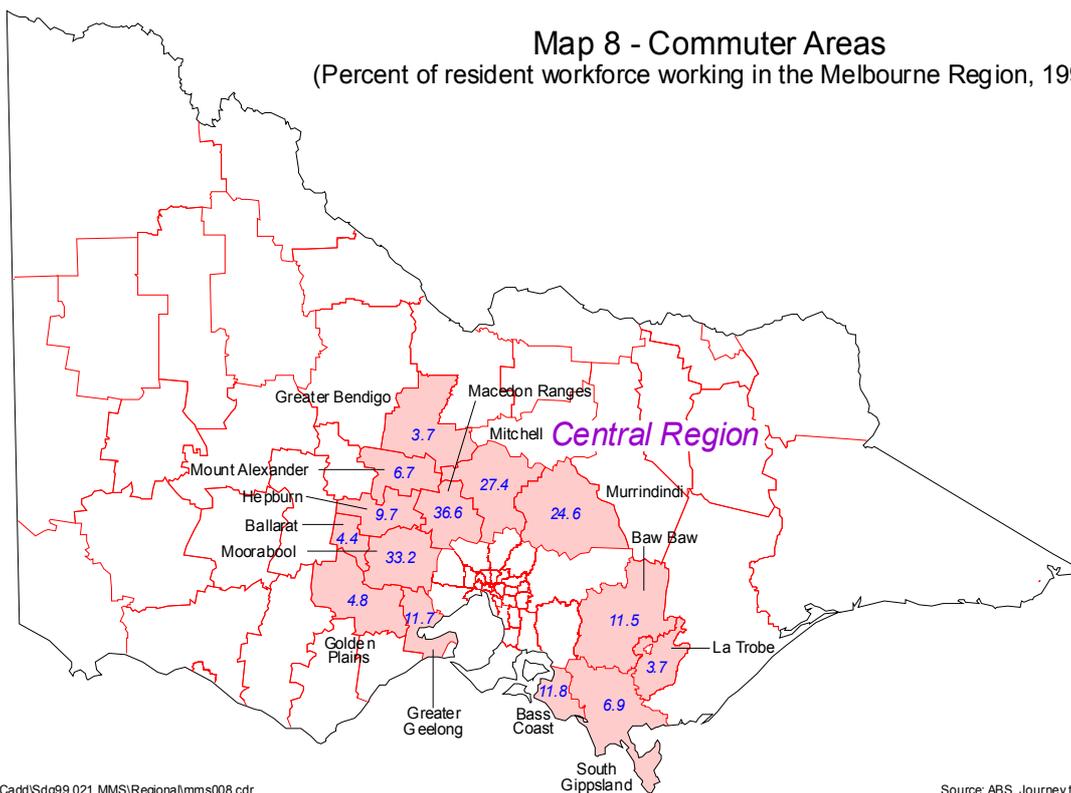
- Changes in social values
- Technological change (freeways, high speed trains, telecommunications)
- Increased flexibility in working arrangements
- Acceptance of longer travel times
- Economic developments that include the continued process of workplace decentralisation from central Melbourne to suburban locations
- Decentralisation of warehousing, industrial and commercial activities to the south west metropolitan area from the inner areas of Melbourne.

It should be noted that the ex-urban commuter areas to the north west of Melbourne, which have over 20 percent of their employment in the metropolitan region, are within about one hour's drive of major employment nodes in the outer suburban and inner city areas (see Map 8).

⁶ While the data in **Table 1** is not time series, it is consistent with earlier studies of the ex-urban fringe that have noted a similar pattern. (McKenzie, 1996, P.40; USE, 1994, P.13)

⁷ The numbers in the table underestimate the actual workforce due to ABS confidentiality requirements.

Map 8 - Commuter Areas
 (Percent of resident workforce working in the Melbourne Region, 1996)



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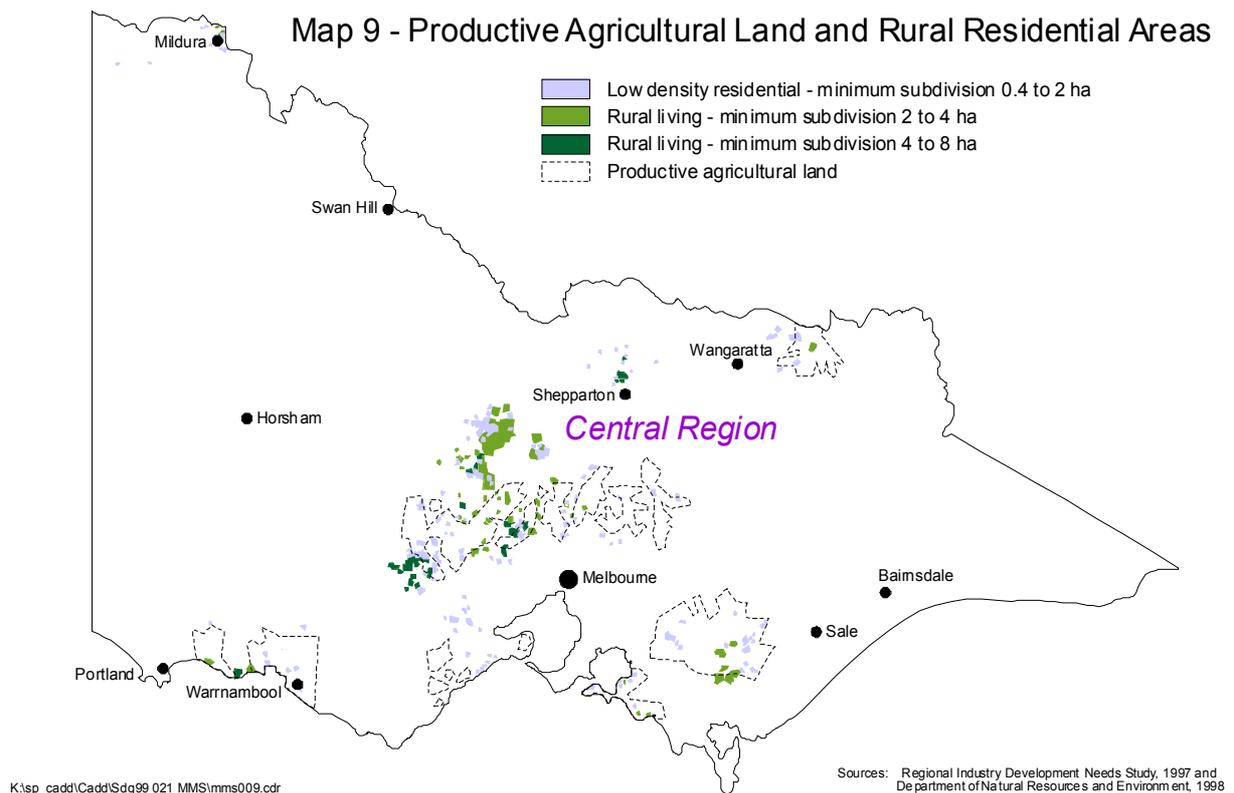
Source: ABS, Journey to Work, 1996

Impacts of Growth and Development

Ex-urban development has generated some problems. For example, a 1994 study of the Calder Highway corridor identified the following issues:

- Provision of sewerage services to unserviced towns and communities.
- Designation of land to provide for particular forms of development particularly residential and industrial uses.
- Nomination of routes for road upgrading and town bypasses.
- Management and control of adverse land uses in water catchment areas.
- Tourist, recreation and residential pressure on public land areas.
- Protection of infrastructure investment in agricultural production.

The people who move to ex-urban areas have a choice between housing in or adjacent to existing settlements, or in rural living environments. Up to 40 percent of dwellings in the ex-urban areas are classed as rural living⁸ and one in five new dwellings built between 1991/92 and 95/96 were of this type.



A recent study of the areas undergoing rural living development (which include the Calder corridor - see Map 9) concluded:

- In some areas a by-product has been improvements to land management

⁸ Mainly dwellings on lots between 0.4ha and 4ha in size, but sometimes including larger lots (up to 40ha) where the main use is residential.

- In the short term it is likely that market forces and local planning policies may limit the loss of productive agricultural land to rural living development. In the long term, the continued demand for rural living development will see a continuing loss of productive agricultural land to non-productive uses
- Some reduction in agricultural output in some crops may be expected over the immediate future. In the study area, production capacity and operation of most high value commodities, specialist crops and intensive animal operations are under pressure from urban and rural living development.
- The growth of intensive agricultural activities and the ad hoc spread of rural living development is leading to increasing land use conflicts
- Agricultural production is becoming more and more industrialised, more mechanised and larger in scale – and more incompatible with rural living development.
- Critical areas are the highly productive fringe areas of the Melbourne metropolitan area and the areas of intensive horticultural production around the regional centres – land use conflicts, unprotected water catchments, environmental resources, mineral and stone resources, major landscape and recreational areas⁹
- Some councils see benefits from rural residential development in the form of economic growth, better use of existing community infrastructure, increased rate base, increased population and general economic prosperity
- There is an overall higher cost in servicing rural living residents with road maintenance being the highest and longest term issue
- Cross subsidies exist between urban and rural living residents particularly in relation to roads, garbage collection and, at times, to the extension of water and sewerage services.

A number of social impacts have also been observed which, while not unique to such areas, seem to be more prevalent than in established urban areas. These impacts include higher levels of social isolation, marriage break-ups, domestic violence and youth alienation. Some of these problems are attributed to the higher costs of living and the relative lack of social support services. However, there is a distinct lack of in-depth study of social issues to offer any authoritative view.

Clearly there are a range of impacts associated with developments beyond the fringe of Melbourne and between Melbourne and the major regional centres. Some of the impacts have been beneficial, while many have been detrimental.

⁹ A number of these impacts were noted by an earlier study of the issues arising from development on the urban fringe of Melbourne – see Advisory Committee, 1996

Potential Issues for the Metropolitan Strategy

The main theme arising from the available studies is that the continuing restructure of the Victorian economy is further concentrating economic and related activity in Melbourne¹⁰. Closely related to this is the fact that those major regional centres closest to Melbourne (Geelong, Ballarat, Bendigo, and to some extent, the Latrobe Valley) as well as those on the Sydney-Melbourne corridor (Shepparton, Wodonga) are increasing their economic role and are becoming more interactive with Melbourne across a range of activities. Melbourne, therefore, seems to be providing opportunities for these select regional centres to advance their economic wellbeing and increase their range of lifestyle options.

In summary, the information in this report indicates that the economic relationship is evolving and the main directions are:

- Significant investments in agriculture have favoured the largest regional centres in Victoria, particularly with food processing plants and associated support industries
- These regional centres are also now more closely tied to the tertiary education system which is predominantly Melbourne focussed
- Melbourne is becoming more important to regional centres as a location for warehousing and distribution of goods to those centres
- Melbourne has retained its prominence in higher order retailing and recreation services, but the largest regional centres are increasingly dominating smaller centres in the regions
- The regions and centres closest to Melbourne will benefit from increasing levels of tourism
- Melbourne is increasing its role as gateway for national and international trade and hence increasing the importance of those transport links to/from and through the metropolitan region from the closest regional centres
- The regional centres close to Melbourne are increasingly becoming viable locations for 'back-office' information processing and call centre type development relating to firms operating nationally from Melbourne and other capital cities
- As the physical expansion of the metropolitan region continues, improvements to the transport infrastructure are fuelling increasing levels of population growth in areas along the corridors between Melbourne and the regional centres.

Issues for Regional Centres

Regional centres have the capacity to expand their populations, in some cases substantially, apparently without major infrastructure servicing problems or costs. However, no recently compiled comparative data exists across centres to make a definitive conclusion about the relative cost profiles for various types of development in each centre, and whether any major threshold issues for major infrastructure may arise in particular circumstances. For example, it is estimated that Ballarat's existing water supply could support a population of around 160,000 people. However, this figure could be substantially

¹⁰ The dynamics of the relationship between Melbourne and the regional areas is not always evident from the data that is available for analysis. Except for demographic information, much of the data is a snapshot in time. For example, changes to the type and distribution of retailing activity need to be pieced together from a combination of sources, with problems of comparability within the data sets and between time periods. There is also little information about actual development activity or infrastructure capacity within centres that is comparable across centres. Reliance is made on project specific survey data, which again raises issues of comparability and lack of ongoing data for longer periods of time.

reduced if a major water using industry were to establish in the city. Geelong has sewerage constraints in some areas (eg Lara) while long term water supply can be assured through major augmentation works. Bendigo has water quality problems that will require a new and expensive water treatment plant to rectify.

In addition, the pattern of investment in substantial new developments, particularly in the core of regional centres, has been patchy and is limited in Ballarat and the Latrobe Valley. Therefore, the ability of each centre to take advantage of the strengthening relationship with Melbourne is uncertain and depends greatly on the resolution of issues specific to each centre. The cumulative impacts of population and employment change on the economies of the main regional centres, especially concerning major infrastructure provision, is an issue.

Information on existing travel patterns indicates that regional centres within one hour travel time of Melbourne benefit by picking up residents who are able to commute to work in the metropolitan region. Currently, only Geelong is within that time horizon and just over 11.6 percent of the Geelong resident workforce work in the metropolitan region. Ballarat could potentially come within one hour's commuting time with a fast train service. Currently, only 4.4 percent of Ballarat's workforce work in the metropolitan region (about 1280 persons). If the travel time were similar to Geelong's, then perhaps twice as many of residents would work in the metropolitan region, or around 2600 persons. While this would probably be a significant boost to the Ballarat economy, the impact on metropolitan Melbourne's development trends would be minimal. On the other hand, further reducing the travel time between Geelong and Melbourne may have substantially greater impacts on both regions given the size of the Geelong population and workforce, and its proximity to the major employment areas of western Melbourne.

Issues for Regional Corridors and Ex-urban Areas

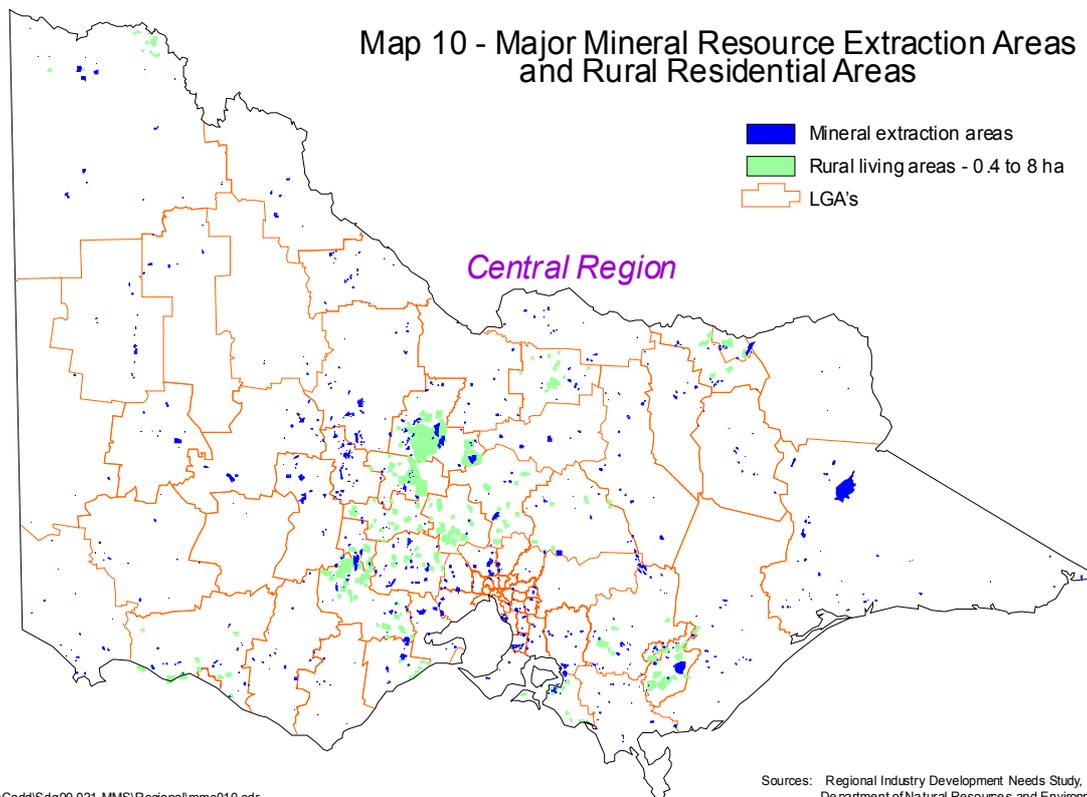
One outcome of the economic relationship is that Melbourne's growth has contributed towards development pressures further and further into regional Victoria. That is to say, population growth and residential development is occurring at a rate above the State average in areas on the fringe of the urban area within the metropolitan region, as well as in regional municipalities adjacent to the fringe and adjacent to major regional centres (except the Latrobe Valley). The majority of these ex-urban areas are experiencing both expansion of existing settlements and substantial increases in rural living development. Both these trends have varying local and sub-regional impacts and the collective effects are evident in only a few instances.

Metropolitan Melbourne will continue to grow and develop, and the search by people for alternative living areas close to the metropolitan area will probably continue as long as existing economic trends and policy settings continue. Most people who seek to live in this fringe and larger ex-urban area are still tied economically to the metropolitan region for employment and for social, cultural, commercial and recreational services.

The available data indicates that there are both costs and benefits to this pattern of development. Most of the costs are accrued locally. The costs to the individuals and families are through effects such as reduced access to urban services and higher transport costs. The impact on the local communities results from cross subsidisation of services and infrastructure maintenance from urban residents to rural living residents.

The main issues appear to be:

- The impact of rural residential development on the quality of water catchments, that are predominantly in private ownership and service regional towns and cities.
- The impact of rural residential development on the ability to use major sand and mineral resource extraction areas that are needed for building and development (see Map 10).
- The impacts of development in specific areas of the State on the viability of agricultural production and on specific food processing plants, in particular towns that depend on that production because of land use conflicts arising both from the industrialisation of agricultural production and the increasing presence of rural residential development in rural areas.
- The cumulative impacts of changes in population growth and development brought about by changes in transport facilities and services along major transport corridors between Melbourne and regional centres. The Calder Corridor is the only corridor which has had an integrated study.



Issues for Melbourne

Longer term concerns exist for agricultural production in areas in or adjacent to the metropolitan region as a result of direct conversion of land to urban uses and from the effect of metropolitan growth on development expectations. There are grounds for considering special planning measures to deal with these direct and indirect impacts as part of the metropolitan strategy.

A range of options exist and, for example, it may be possible to consider the role that strategic open space networks and environmental areas may play in shaping urban form and limiting potential conflicts between uses at the fringe. The introduction of 'right-to-farm' provisions could also be considered to limit the impact of residential development in rural or semi-rural areas on existing agricultural uses.

The importance of the metropolitan transport system to regional centre development means that the planning and management of the metropolitan system needs to take account of regional requirements, particularly with respect to freight, general business and tourist movements. As the transport system is also available for commuter use, the development or upgrading of any part of the inter-regional transport corridors will require a broad consideration of development impacts. The possibility of attracting new development to the regional centres as part of a growth management strategy for Melbourne warrants further investigation particularly in light of the recent intention to introduce fast train services between the closest centres and Melbourne.

Issues for Planning in Victoria

Planning for the metropolitan region's growth and development in isolation from the surrounding regional areas is possible, but highly undesirable. For reasons to do with economic relationships and physical and environmental interactions, the metropolitan region is inextricably linked and inter-dependent with its hinterland. This is most strongly (but not exclusively) felt in the 'Central Region'.

The development dynamics of this broad region of the State are central to the State's future. There needs to be though an integrated approach to this development. In particular, there is a demonstrable need for better information about:

- The nature and extent of economic relationships between Melbourne and the regions in the Sydney-Melbourne Corridor, and the implications of these for growth and development in Melbourne and the surrounding regions
- Development activity and its impacts in and adjacent to all the transport corridors between Melbourne and the nearest regional centres
- Development activity and infrastructure and service issues in the regional centres, and in the broad regions they serve.

The extent to which certain centres can be planned and promoted for development, partly as a response to development pressure in Melbourne and partly to maximise inherent development opportunities in those centres, is an underlying and difficult issue to address. The difficulty is not only related to the need for more information on what can be termed conventional planning factors, such as the state of the infrastructure or the land use patterns. Some issues to consider include the possible future impacts of improved information and communications technology on the spatial distribution of work and living arrangements, and the impacts on mobility of increasing energy prices. These two issues alone could dramatically affect the options available for development in Victoria and would need careful consideration. As indicated above, there is a current lack of information on which to make decisions or set directions.

However, it is clear that growth and development in Melbourne is affecting the prospects for development for certain regional cities and towns in the 'Central Region'. The question is whether Victoria's overall development prospects are optimised by the current development trends and patterns. Perhaps a more contained metropolitan area together with accelerated growth in regional centres would be a better option.

There are some limited theoretical grounds¹¹ for believing that large urban areas that consist of a variety of centres of activity of different scales and types are more flexible and adaptable in the face of changing economic and social circumstance. These urban areas, called network city-regions, exhibit innovation and creativity and can be the catalyst for enhanced economic activity.

Planning to encourage such an outcome will probably require that as much attention be given to the 'small and diverse' as to the 'large and monumental' in the preparation of planning strategies. The importance lies in having diversity and redundancy in urban systems and hence greater ability to adapt to future needs. More attention also needs to be given to information and knowledge gathering, and to maintaining and considering how this information can influence investment and other decisions.

¹¹ See for example David Batten, "Network Cities: Creative Urban Agglomerations for the 21st Century" in *Urban Studies*, Vol. 32, No. 2, 1995

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