## ARTICLE

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Queensland Transport Futures 2003– 2020\*

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## Abstract

Over the last 30 years, the use of public transport in Queensland has dropped alarmingly. This paper looks at the potential for reversing that trend over the next 20 years, in the light of rapid population growth and urbanisation that is expected to occur. Also examined here are some of the lifestyle costs of urbanisation and the dependence on private transport for basic mobility.

## Introduction

Queensland is the fastest growing State in Australia, and South-East Queensland is the country's fastest growing region. Between 2000 and 2020, over 1,000,000 people are expected to move to South-East Queensland, equivalent to the present population of Adelaide. The current Population of SEQ (1.68m) represents 65.8% of the overall Queensland population. This is a wider population spread than in other Australian States. However, this proportion is increasing, as almost 8 out of 10 new arrivals to the State settle in SEQ. Therefore of the 1 million people moving to the State between 2003 and 2020, over 700,000 will come to settle in South-East Queensland. By 2030, the population of SEQ s expected to reach over 3.4 million.

This paper will look at alternative futures for per-

sonal transport in South-East Queensland, 2005-2020, primarily using the futuring technique of *Causal Layer Analysis*. In addition, several *Scenarios* will be laid out, which will lay out the result of the analysis into separate possible futures. Each scenario will include consideration of social dimensions.

# South-East Queensland: Today and into the Future

People living in SEQ generally enjoy doing so. A recent University of Queensland study found that 91% were either satisfied or very satisfied with life in the region. Lifestyle, dimate, and natural environment were rated as the three biggest factors influencing this. Significantly, traffic congestion and loss of natural habitat were two of the main concerns. The reasons why

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people move to SEQ are also the aspects most likely to be adversely affected by a continuation of current trends. Urban sprawl is a direct cause of both natural habitat loss and of traffic congestion.

Queensland has an enviable lifestyle by Western standards. Queensland also attracts many interstate migrants, drawn by a combination of lifestyle, cheaper cost of living than elsewhere, and job opportunities. Over the last 10 years, net interstate migration has averaged over 30,000 each year, though this figure can fluctuate from year to year. Overseas migration adds around 10,000 per year to Queensland's population as well.

The population of Queensland is the most distributed of any Australia State. Around 68% of Queenslanders live in SEQ. Given the large land area of South-East Queensland, and the lack of an integrated public transport system, personal transport is a critical component of the lifestyle.

Private transport is a fact of life for most Queenslanders. Public transport currently accounts for just 7% of all journeys taken in SEQ. In contrast, private car trips account for 80% of journeys.

As more people move into the region, transport issues will become increasingly critical. The current mayor of Brisbane has noted that transport and traffic are clearly the most serious issues that southeast Queensland as a community faces.

Having less vehicles on the roads in the face of rapid population growth seems like an impossible dream. Yet the billions being earmarked for more transport corridors are needed in many cases because poor planning has created suburbs with no transport links other than private transport. Public transport models could be used to address some of the transport issues, as a usage figure of 7% suggests a completely inadequate system, rather than public unwillingness to leave the car at home.

Use of public transport was not always so low. In the 1960s, almost 40% of trips taken were by public transport. An increase in personal wealth, leading to greater private car ownership must surely account for some of this decline, yet it cannot be the sole reason for it. As always, people will only use public transport when they find it convenient to do so. The public can hardly be blamed for using the most convenient from of transport. Increasingly in a situation of urban sprawl, people find themselves in an environment where to avoid using the personal vehicle is to endure considerable inconvenience and often risk. (Inayatullah 2001)

The private vehicle is thoroughly embedded in the psychology of Queenslanders as an integral part of the free and relaxed lifestyle offered by the State. Yet emissions from vehicles (including commercial vehicles) account for around 50% of the State's greenhouse gas emissions.[get ref] Should public sentiment sway overwhelmingly in favour of reducing greenhouse gases, then this will have to be addressed, either through reduced private vehicle ownership, or the introduction of emissions reducing technology. Such a swing in public priorities may seem far-fetched today, but the decisions makers of 2020 and 2030 are currently in school, university, or yet to be born. Their values are likely to be markedly different from the prevalent values of society today.

Vehicle fuel cells would seem to offer the best hope for the future of the private car, as they offer the promise of zero emission vehicles. Additionally the technology already exists and is proven, the only remaining barrier is cost, which will surely come down with time and innovation. However at this time, none of that innovation is being done in Queensland.

When looking several decades into the future it is both tempting and comforting to imagine a technological solution to current problems, such as fuel cells addressing pollution from vehicles. However, when looking back 30 years, and tracing the development of urban sprawl, it can be seen that technology has so far only exacerbated transport issues, adding to people's need to use private transport for short, frequent trips.

New technologies have facilitated the suburbanisation of SEQ. One example is the rise in home delivered food, such as Pizza. This has added, rather than reduced the number of short trips being taken, as each pizza store has its own fleet of delivery vehicles. Typically, these vehicles are privately owned and driven by voung Oueenslanders, who must own their own car to undertake this kind of work. The kind of lifestyle that the stay-at-home suburb encourages is also unhealthy. Studies in the US have recently uncovered a link between urban sprawl, obesity, and heart disease. Studies have found that people are more likely to be overweight, and more heavily overweight, when they live in a large urban sprawl, as opposed to a compact city centre. While these data are in the early stages it should also be noted that a recent survey undertaken showed Oueenslanders to be on average fatter than their interstate counterparts. We cannot afford to ignore the negative lifestyle aspects of urban sprawl.

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Technology would appear to offer a solution to the work rush hour problem, through telecommuting. However it is the mobile, not landline phone which has had the greatest impact on business Examples include the increase in plumbers, electricians, gardeners, and other household service providers. These people are able to essentially work on the road, communicating via mobile phone.

The nature of work has also changed drastically since the 1960s, yet public transport mentality seems not to have changed at all. This too can account for the drop in use of public transport in SEQ over the last 40 years. Large buses, used for ferrying workers en masse to factories and other centralised areas, must now try to ferry people to vastly different areas, and for different reasons. Yet the public transport system seems not have moved on from the 1960s transport paradigm. The flexibility that the modern lifestyle requires is simply non-existent in the system.

The current layout of wide living areas, combined with the lack of a public transport network, encourage the use of private transport as the most reliable means to get from place to place.

In addition, the same open nature of the region means that many people must also drive their children to school in the mornings. In many cases, this means two cars on the road during the morning rush hour. This is not a problem unique to southeast Queensland, but it is one that must be adequately addressed as part of any solution to traffic congestion. "School-run" drivers have been targeted in the UK as part of a nationwide plan to cut traffic congestion. The approach there has been to ask individual schools to introduce ways of cutting the number of parents who drive their children to school each day.

Other states in Australia, with their ageing populations, can expect any additional congestion caused by the school run to diminish over time, as there will be less students needing to be dropped at school. Queensland's younger demographic profile means this is not the case here. Additionally, the typical migrant to Queensland is a young family with children. While the school run is not the critical cause of traffic congestion, it is undeniably a contributor, and will continue to be so.

If transport congestion is primarily seen as a case of reducing traffic snarl during rush hours, and the main purpose of public transport is seen as taking people to work en masse, then no effective traffic solutions can be developed without reference to work, and the likely future of work.

## The Changing Nature of Work

The changing nature of work means that many people do not use public transport at all. The system is designed to ferry large numbers of people to the same place, at the same time. The assumptions this system is based on are largely out of date. Many public sector workers are now on flex-time, a system that allows them to start later or earlier than the usual 9.00 am, should they so wish.

Already in Queensland there has been a massive shift towards casual employment. Over the last 10 years, the amount of casual employment has doubled. Casual workers often work in shifts, rather than in the traditional 9-5 hours of work, and have different transport needs. The service sector currently makes up over 80% of the Queensland economy, and so these workers can hardly be considered a minority.

While some might say that Queenslanders have chosen private over public transport, in

many ways, this choice has been made for them. Policies such as the rationalisation of transport lines (especially rail), and the shrinking of bus lines and routes, as well as barriers created by the LGA network have helped make private transport far easier than public. In many areas, people have no choice but to use private transport. Those without the means to afford private transport find themselves at a great disadvantage when looking for work, creating a real social divide between haves and have-nots in personal transport.

The main failing of public transport is its continuing reliance on centralisation, and the assumptions behind this. This especially applies to buses in Brisbane, which all head in one direction- towards the CBD. If you want to travel from one suburb to another, you must pass through the CBD, and change buses. This can easily take over an hour. Or you can take a private trip of perhaps 20 minutes. This is the reality faced by thousands of Queenslanders every day.

Where are the small, 16-seat buses, doing frequent runs from suburbs to shopping centres and back? Where are the buses taking targeted groups of people from one suburb to another, non-adjacent one? Where are the school buses, to reduce the need for families to drive their children to school every morning? Where are the surveys to let the public transport providers know where and when people want to travel?

Public transport in Queensland needs to be both overhauled and integrated if it is to have any realistic chance of regaining its former popularity. Queensland has road, rail, and ferry facilities, but the public still find it more convenient to use their own transport, and this trend shows no signs of abating. To reduce, rather than increase, the use of private vehicles would require both a large investment and a massive restructure of public transport systems in Southeast Queensland. Privatisation of all buses in Southeast Queensland remains an option worth considering. Thus far, Governments have preferred to spend money instead on building and maintaining and ever-larger road network. In this, they have done no more than bow to public pressure. It is quite likely that public opinion will change over time, and there may be vocal calls for public transport reform in the future. Just as attitudes shift between generations, attitudes of a generation shift as that generation ages. For example, as the baby boomers age, their attitudes towards public transport may well change, among other things.

## **Causal Layered Analysis**

Causal Layered Analysis is a technique used to analyse rather than create the future. By looking at a variety of layers; The Litany, Social Causes, Myth-Metaphor, and the Worldview. By looking at each of these layers, a more complete analysis can be undertaken. [Inayatullah] This section of the paper is an analysis of the transport issues covered above through the lens of the causal layer analysis. This will reveal insights into the transport issues of Southeast Queensland that would not otherwise be apparent.

#### The Litany

The Litany surrounds us every day of our lives. It is present in newspaper articles, television shows, reports, and in conversations. The Litany is the accepted truth of transport. For SEQ, these accepted truths are:

- more roads are needed for more vehicles
- urban sprawl is a problem
- loss of the natural environment is a problem
- pollution is a problem
- private vehicles are a desirable item
- private vehicles provide freedom and security
- Governments are obliged to provide world-class transport links
- Buses and trains are slow an inefficientnot desirable methods of transport

#### Social Causes

Social causes of transport in SEQ can be broken down into a number of sub-factors. It is worth remembering that transport is not an end unto itself; when people travel, they have a reason for doing so. When people use private transport, it is because of a weight of different factors encouraging them to act in that way.

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Firstly, combination of suburban layout, and a lifestyle that encourages frequent trips to school, leisure facilities, shops, and work, require short, frequent trips.

The lack of a convenient and effective public transport network, causes people to use their own private transport as the solution to their transport needs.

Historically, and increase in wealth has led to an increase in private vehicle ownership, chiefly as a desirable consumer item. Pressure then comes to bear on governments to facilitate the use of such private vehicles.

Politically, Governments have found it easy to underfund public transport and to spend more money on road networks for use by private vehicles.

#### Worldview

Capitalism is a key part of the SEQ worldview. Private property (in this case, the road vehicle) is seen as something worth working to obtain and keep. Next to home ownership, it is vehicle ownership that forms the mainstay of the aspirational consumer lifestyle.

SEQ has the same worldview as Australia as a whole, tempered by a certain amount of parochialism. Like other Australians, people here like to travel, whether overseas or within Australia. The private vehicle, and increasingly now, the four-wheel drive, is seen as an expression of this worldview. People buy such vehicles to show their intent to travel; whether or not they do so is anther matter.

Myths and worldviews are intrinsically linked, particularly through the weight of history. Over the last 100 years, Queenslanders have moved from being a largely rural, uneducated society, to an urban, educated one. In 1901, the typical Queenslander was male, aged 20-25, with some school education, working in a rural environment. Today, the typical Queenslander is a 35 year-old female, with tertiary education, doing white-collar work.

This change has come about through an immense change in the environment of SEQ. What were once farms are now suburbs. It does not take a great stretch of the imagination to see that where there are now farms, there will one day be suburbs. Without a phase change, there will be no alteration to the current trend of ever-expanding suburbs.

#### Myth-Metaphor

Like the rest of Australia, and much of the Western World, Queensland has conflicting myths. The rural lifestyle is romanticised, yet people living that lifestyle receive little to no political support - it has become a lifestyle available only to those who can afford it. Similarly, the natural environment is at once adored and reviled. People want to spend time in active lifestyle pursuits, yet herd themselves into endless stretches of suburban greyness, pushing the boundaries of nature away form them. Nature is something that can be accessed only using private transport for a long trip.

The likelihood and nature of the above features of a preferred future are further examined below in a series of short scenarios. These scenarios are not intended to provide a definitive pathway, rather they describe aspects of futures which can be seen as probable based on current trends.

## Scenarios

#### Close to Everything

Urban planning becomes an integral part of new housing development in SEQ. In fact, the term housing development becomes a nonsequitur, as a far more holistic approach is taken to every new development. Private developers, LGAs and State government work together to ensure that every new development is self-sufficient with shopping and leisure facilities. Demographic information, dynamically updated, allows schools to be built where children are (or will be). The need for private transport for short frequent trips all but disappears. The school run is restricted only to those parents who children got o private schools a few suburbs away. Roads are still very important to the fabric of South-East Queensland, but they are simply not needed for trips of low importance.

#### Clean Jam

In this scenario, development in South-East Queensland continues on its current rend for the next three decades. However, advances made elsewhere in the world mean that by 2030, 95% of vehicles on the roads are powered by fuel cells, which give off only water vapour as emissions. Air pollution from transport becomes a thing of the past.

Transport problems remain high though. Uncontrolled and unplanned urban sprawl mean many people must spend over half an hour in their car, just to get to the shops. Public transport continues to ferry people into the city, where hardly anyone needs to be. Road congestion becomes a major factor in driving people out of south-east Queensland altogether, away to more planned residences elsewhere in Queensland's coastal area, as well as interstate. South-east Queensland's problems are not unique, but other places have tackled them with more success, and now attract people seeking a quieter lifestyle.

#### Clog & Smog

As global warming has an ever greater effect, summertime in a polluted Brisbane becomes unbearable. Those with the financial resources to do so move away from the city. Property prices in suburbs collapse as people seek coastal living, forming an almost endless strip of development from Brisbane to Bundaberg. Technology makes telecommuting a normal way to work, and people taken advantage of this. Public transport becomes irrelevant, as legions of private cars swoop along multi-lane freeways that follow just behind the coast.

## The Preferred Future

As with other issues, the preferred future can often devolve into little more than the author's personal wish-list. However, taking information from the preceding parts of this article, you can see some clear preferences coming through. For SEQ transport, the preferred future is one where

- A public transport system, integrated across the region, is affordable and responsive to people's needs, cutting down on the use of private vehicles for short trips.
- A sensible network of roads facilitates private transport use for longer and irregular trips, while also allowing easy use for other economic activity (i.e. freight transport).
- The spread of suburbs eases, with 'green belts' left in place to keep the natural environment accessible.
- Clean technologies means that private road use no longer contributes towards air pollution or greenhouse gas emissions.
- A networked economy allows for increased working from home, putting an end of the worst of the rush hour.
- School buses are an integral part of the SEQ lifestyle, with no more need for the morning "school run."

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