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Accessibility planning methods

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Additional note

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The new organisation will provide an integrated approach to transport planning, funding and delivery.

This research report was prepared prior to the establishment of the NZ Transport Agency and may refer to Land Transport NZ and Transit NZ.

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Executive summary

This report investigates the applicability of accessibility planning in New Zealand as a tool for assessing and improving personal access to essential services for all New Zealanders. The research undertaken to prepare this report was conducted by Booz & Company (New Zealand) Ltd as part of the 2006/07 Land Transport NZ Research Programme.

The concept of accessibility planning

Accessibility relates to ease of access, while mobility relates to ease of movement; whether by private motor vehicle, public transport, walking or cycling, which makes it an aspect of accessibility. Personal accessibility is defined as the ability or ease with which activities, either economic or social, can be reached or utilised. It is a fundamental basis of economic and social interaction, whether for work, education, health, shopping, recreation or other purposes, and is a function of the spatial distribution of activities – their size, quality, character and their ease of reach. As a planning goal, the assessment of accessibility allows for the evaluation of trade-offs between land use, transport and social needs. It focuses attention on the level of service of the ‘system’ as a whole, rather than on aspects of the transport system only. This differs from traditional transport planning, which tends to focus on improvements to the transport system that facilitate mobility, without considering the access needs that drive travel behaviour.

Accessibility planning can be simply defined as a structured process for the assessment of, and planning for, accessibility. It uses quantitative and qualitative data and employs tools such as geographical information systems to systematically assess a range of accessibility-related information, including origins, the location and delivery of key activities and the transport links to and from them, and to assist in the development of a set of accessibility indicators. This enables actual accessibility to be assessed against the indicators, which in turn allows accessibility problems to be identified, addressed and monitored. When fully developed the process is a continuous one and provides evidence of changes in accessibility over time.

As a transport and land-use planning tool, accessibility planning offers a number of benefits. These include: coordination between transport and other public policy objectives (eg housing, education, health, social services); providing a method for assessing access equity, as it considers the needs of all groups in society; enabling the identification of the social implications of land-use projects or transport service changes; and it can help deliver positive social, economic and environmental community outcomes.

International practice

The application of accessibility planning and the primary driver for its introduction varies considerably within and between countries. However, the international experience can be grouped into the following three broad categories or methods:

- Comprehensive accessibility planning: Planning for accessibility is fully integrated into the transport and land use planning system. This is best exemplified by the approach taken across England, where accessibility planning is used to inform all levels of transport planning from the development of local area transport plans to the evaluation of projects and land developments in order to address issues of social exclusion.
- Limited accessibility planning: The most common form of accessibility planning, it involves the monitoring of accessibility using a limited range of indicators with the results informing the transport planning process in some way, typically to assess transport equity. Limited accessibility planning has been employed in Southern California since 1998 to determine long-range transport-related equity issues.
- Regulatory accessibility planning: This usually involves the use of regulations or land-use zoning, primarily to reduce avoidable car mobility while ensuring access to economic activity centres. It doesn't use accessibility indicators or follow an assessment process in the way that the previous approaches do. The Netherlands provides the best example of regulatory accessibility planning, with its categorisation of land use in urban areas according to the location and accessibility via public transport.

Irrespective of the primary drivers for introducing accessibility planning and the approaches taken to address them, all accessibility planning frameworks share the same basic goal of improving access to activity centres. England, Southern California and the Netherlands all have different legislative frameworks; however, all implement accessibility planning at the local level, with some form of overriding national monitoring and guidance.

The English comprehensive accessibility planning framework is of most interest to this research as it is applied in urban and rural areas and implemented across levels of government, with a similar structure to that of New Zealand's central and regional government. This is of relevance to the New Zealand situation from a governance perspective and because comprehensive accessibility planning best meets the goals and objectives for access and mobility documented in the *New Zealand transport strategy* (NZTS) (Ministry of Transport 2002). The English accessibility planning framework consists of five interlinked stages. It requires collaboration across all sectors and levels of government. National and local accessibility partnerships undertake the first stage, with the remaining four stages occurring at the local level:

1. Strategic accessibility assessment: The identification of national and local level strategic priorities and development of requirements for subsequent, more systematic assessments
2. Local accessibility assessment: Assessment at a more detailed level, focusing on the previously identified areas of priority, population groups and problems
3. Option appraisal: Assessment of options that address identified accessibility problems
4. Accessibility strategy and plan preparation: Production of a local accessibility strategy and an associated action plan that prescribes a specific path for improvement
5. Performance monitoring, evaluation and feedback: Ongoing monitoring of accessibility levels using standardised accessibility indicators.

Accessibility assessment and indicators

Accessibility indicators quantify accessibility and determine the ease with which an individual, population segment or community can access one or more activities from a residence or other location using the available modes of transport or services and/or technologies. As indicators and targets have multiple purposes within the process, their development and use is a critical component of an accessibility planning framework.

The English accessibility planning framework incorporates accessibility assessments using standardised core (national) and local indicators of accessibility and the development of accessibility strategies and plans. These functions are undertaken at the local level by local transport authorities (LTAs) in partnership with central government and key stakeholders. Core indicators, developed by the national accessibility partnership, inform development of local indicators and targets applicable to each LTA's region. They also measure and compare accessibility across the LTAs on a national basis. Indicators are calculated based on journey time by car (for taxi and demand-responsive transport trips), public transport, cycling and walking, and cover accessibility to school and further education, work, a doctor, a hospital and a food store, being the journey purpose types identified as having the most impact on life chances.

Applying accessibility planning in New Zealand

Accessibility is an issue of concern for New Zealand policy makers and is being considered to varying extents by a range of organisations across government. However, the current approach to accessibility is somewhat piecemeal, largely uncoordinated and mainly focuses on monitoring rather than active assessment and planning. Both transport and non-transport agencies (eg the health, housing and education sectors) have strategic objectives that relate to accessibility, but these are not currently linked. Implementing a comprehensive accessibility planning framework has the potential to increase collaboration between the traditionally disparate disciplines of transport, land-use planning and social services. In doing so, accessibility would cease to be perceived as solely a mobility or physical access issue as non-transport perspectives and solutions are an integral part of the process.

The successful implementation of accessibility planning in New Zealand would be reliant upon the development of a national accessibility policy that clearly states the whole-of-government position on accessibility, including how and when any policy actions would be introduced, resourced and funded. In the absence of a national accessibility policy, the driver for this framework is the transport sector outcome to increasingly provide affordable and reliable community access. This research considers that the sector outcome applies nationwide and focuses on accessibility to the activities that have the most impact on life chances. Delivering this outcome would also meet accessibility-related outcomes in the regional land transport strategies and in many long-term council community plans.

The recently legislated changes to the land transport sector, including the development of a *Government policy statement* (GPS) outlining high-level transport priorities and funding directions and levels, and the release of an updated NZTS in mid-2008 provide the opportunity to introduce accessibility planning across the transport sector. The proposed

accessibility planning framework incorporates these transport sector changes, the existing planning legislation, social services institutional structures and established across-government processes. It is also cognisant of the accessibility outcomes and targets documented in the NZTS discussion paper.

The proposed framework is based on the comprehensive framework employed in England, with the five stages adapted to the New Zealand situation. There are two key differences between the English framework and the one proposed for New Zealand: firstly, the latter includes private motor vehicles in its assessment. This is due to the lack of alternatives in many rural areas, towns and parts of some cities as well as the geographical isolation of some residents. Secondly, the New Zealand framework is led at the national and regional levels with the regional councils being responsible for the functions undertaken by the English LTAs.

The Ministry of Transport would lead the development of a national accessibility policy and the accessibility planning process, with the NZ Transport Agency facilitating and monitoring the latter's implementation at the regional level. Accessibility planning partnerships, comprising key stakeholders, would be formed at the national level and within each region to ensure a collaborative process that identifies, considers and addresses accessibility problems in a consistent and holistic manner. Regional councils would lead the development and application of the (regional) accessibility strategies and plans. Current local government and social services frameworks and processes would provide considerable relevant information to inform the accessibility assessment and option appraisal steps in this process. Existing local, regional and national monitoring frameworks and processes would incorporate the core and regional indicators, with indicators developed to assess accessibility to and measure the delivery of outcomes related to access to employment, education and further education, health care, food shopping and social services. This approach would save accessibility partners money and time, and utilise the knowledge and experience of non-transport partners and their existing datasets and stakeholder relationships to help reduce any duplication of effort and avoid consultation 'fatigue'.

Regional accessibility plans would have a direct relationship with the regional land transport plan process as many of the actions listed in the former would become the regional and local transport proposals put up for prioritisation and funding under the National Land Transport Programme. This would most likely require a review of the land transport funding regime to ensure the fair assessment of accessibility projects that support any GPS priorities. Development of an evaluation and funding method for multi-agency actions and for accessibility-related non-transport activities would also be required, and this would help minimise any additional financial burden on local authorities.

Conclusions and recommendations

Many central government agencies and all local authorities and their communities already recognise the importance of good access and accessibility to enable residents to participate fully in society. Accessibility planning has the ability to improve the life chances of all New Zealanders by delivering improved accessibility to key services and activities such as education, medical facilities, employment, food shopping and community/social services. It does this through the detailed assessment of origins, modes of transport (and transport

alternatives) and destinations together with the identification of the needs of individuals, groups and communities.

This research recommends the implementation of a comprehensive accessibility planning framework across New Zealand to contribute to the delivery of policy outcomes across the transport, health, education, housing, social services and economic development portfolios, among others. By employing a collaborative whole-of-government approach, led by the Ministry of Transport, the objectives and outcomes specified in many government strategies may be delivered over time. As previously stated, the first step in the process would be to develop a national accessibility policy, agreeing and incorporating the relevant priorities and outcomes sought by all partner agencies. The resulting accessibility policy would inform the development of policy and work programmes of the partner agencies and enable regional councils to coordinate their accessibility partnerships in regional accessibility planning.

Further research is recommended to identify the financial and resource costs associated with implementing a nationwide comprehensive accessibility planning framework. Should such a framework be implemented in New Zealand, it should be followed by the investigation into the potential for and impact of including accessibility planning at the project level, for example including accessibility priorities in national infrastructure projects, and regional and local resource consent processes.

Abstract

This research investigated the applicability of accessibility planning in New Zealand as a tool for assessing and improving personal access to essential services for all New Zealanders. It canvassed international accessibility planning practices in England, the Netherlands and Southern California to understand the various drivers for its introduction and the different approaches taken in its implementation. All three case studies share the goal of improving individuals' access to activity centres and recognise that accessibility planning is best undertaken at the local level with some form of central government guidance and monitoring. The English comprehensive accessibility planning framework has been adapted to New Zealand's existing social services and local government legislative and institutional environment and the recently legislated changes to the government land transport sector. The resulting recommended framework employed a collaborative approach to assess and improve people's accessibility to employment, food shopping, health, education and social services across New Zealand. All levels of government would participate in the assessment of accessibility, development of priorities, indicators and action plans and monitor progress against outcomes, within government frameworks. Transport actions developed by regional accessibility partnerships to address regional problems would feed directly into their regional land transport programmes for prioritisation for funding.

1. Introduction

1.1 Research aim

The research detailed in this report was conducted by Booz & Company (New Zealand) Ltd as part of the 2006/07 Land Transport NZ Research Programme. It investigated the applicability of accessibility planning in New Zealand as a tool for assessing and improving personal access to essential services for all New Zealanders. The research followed on from an initial study by Booz Allen Hamilton, which provided outline advice on the topic to the Ministry of Transport, focusing on the application of accessibility planning to issues of social exclusion. In this report we have made recommendations on how to implement accessibility planning and have included guidelines for the assessment of accessibility.

To achieve its aim, the research was divided into two parts. The first part looked at the concept of accessibility planning and documented current international accessibility planning practice. The different regulatory and planning mechanisms that can comprise accessibility planning in developed countries with predominantly European-based cultures were canvassed and documented using examples from England, the Netherlands and Southern California (United States). The respective methods of assessment were examined and the similarities and differences in approach taken by each country/state were identified.

The second part of the research looked at the potential application of accessibility planning in New Zealand by drawing on the earlier investigations and reviewing the New Zealand government's accessibility policies and practices in the context of the current institutional environment. Legislative and regulatory changes to the New Zealand land transport sector introduced at the time of writing this report were examined, enabling the researchers to set out a process for applying accessibility planning across the country based on these changes and the existing planning legislation and social services institutional structures. The most appropriate process for the assessment of accessibility was also considered.

1.2 Scope

The research considered accessibility from a transport viewpoint, as the researchers came from a transport background and the project was funded through the Land Transport NZ Research Programme. However, stakeholders¹ from a range of backgrounds were involved to provide balance and perspective and avoid the traditional 'silo' effect that often plagues the development of integrated planning. The research was not fully consultative, as it did not involve all potential interest groups or disadvantaged communities.

This research did not specifically deal with accessible transport – being the ease with which all passengers, especially those with disabilities, can use public transport². Rather, it took a

¹ This term refers to peer reviewers, steering group members and other parties that have provided direction to the project. These stakeholders provide a range of transport, land-use and social perspectives.

² A 2005 report by the Human Rights Commission, *The accessible journey: Report of the inquiry into accessible public land transport*, dealt with the issue of accessible public transport services in some detail. Further work is now being undertaken by others in that area.

broader and higher level view, to consider the use of accessibility planning to assess personal accessibility across all groups in society. This approach provided a means to better integrate land-use and transport planning decisions and to consider any associated social/equity impacts.

The research did not address the issue of freight accessibility, although many of the principles and processes discussed would be applicable to the freight environment.

The following requirements, identified as important to the application of accessibility planning, were investigated:

- the potential roles of key organisations
- the most appropriate process for the assessment of accessibility
- accessibility indicators and targets applicable across socially, spatially and temporally diverse situations.

In doing so, this research:

- addressed both urban and rural accessibility
- concentrated on the accessibility of individuals to medical services, education, employment, food shopping and community/social services
- considered how accessibility planning could:
 - contribute to the delivery of *New Zealand transport strategy* (NZTS) objectives and *Sustainable transport: Update of the New Zealand transport strategy* (UNZTS) (Ministry of Transport 2007b) targets
 - inform the development of planning documents such as regional land transport strategies (RLTSs), district plans, long-term council community plans (LTCCPs) and urban growth strategies, and assist in monitoring their outcomes
 - contribute to the planning and monitoring of public transport services.

2. Background

Historically, government agencies undertook transport and land-use planning independently. The development of the New Zealand rail network and availability of cheap land outside the urban centres in the early 20th century saw many workers move to detached family homes on land bordering the cities. Public transport provided easy access to employment in the cities, but the increasing availability of motor vehicles over the last 80 years saw government agencies switch focus on infrastructure from public transport to roads. Town planners met land-use demands by opening up more land on the suburban fringes that, until the introduction of the Resource Management Act (RMA) in 1991, was subject to zoning to separate residential areas from work and retail zones. In response to this urban growth, transport planners employed a 'predict and provide' model to meet the growing need for more roads, which improved accessibility to employment, services and social networks but also increased the reliance on private transport. Today, these lower-density, single-use, periphery areas remain less well served by public transport than the higher-density, inner-city suburbs and commercial centres that they border.

Despite New Zealand's predominantly pastoral economy, rural-urban drift saw the population of urban areas increase by over 1500% between 1881 and 2001, compared with an increase in rural areas of only 83% (Statistics NZ 2006). Today New Zealand is one of the most urbanised and mobile countries in the world: around 75% of the population lives in urban areas (exceeding 10,000 people), 92% of households have access to a motor vehicle and there are 750 vehicles per 1000 people (L. Povey pers.comm. 2007). This increased private mobility enables people to travel further more quickly, thereby improving access to a variety of opportunities (which may or may not be accessible by public transport or active modes³), and is reflected in the ongoing increase in travel by private motor vehicle and decline in public transport use. Driving now accounts for more than half of all reported travel time, with household travel distance by road increasing an average of 1.8% per annum since 1997/98. People living in small towns and rural areas have limited alternative modes of transport to the car. Not surprisingly, they drive on average one and a half times as far each year as urban dwellers (Ministry of Transport 2007a), as they must travel further to access certain amenities and social networks.

Decentralisation from central cities to suburbs is predicted to continue in most westernised cities and the motor vehicle will most likely remain the mode of choice or necessity for the majority of residents (Bruegmann 2007). Addressing the transport needs of residents in small towns and rural areas, together with those of disabled people and an ageing population, will further challenge traditional, independent, transport and land-use planning interventions. This will require both an integrated approach to transport and land-use planning and the implementation of other, innovative, solutions if transport's negative effects on economic, social and environmental outcomes are to be minimised.

³ Walking and cycling

3. The concept of accessibility planning

3.1 Accessibility

Accessibility relates to ease of access. It is a broad concept to define and there are many definitions (see for example Halden et al 2005, Handy and Clifton 2001, Social Exclusion Unit 2003, The Royal Commission on Social Policy 1988, VTPI 2005, Withinreach 2006). However, personal accessibility can be best thought of as the ability or ease with which activities⁴, either economic or social, can be reached or utilised.

Personal accessibility is a fundamental basis of economic and social (including cultural) interaction, whether for work, education, health, shopping, recreation or other purposes. It is a function of the spatial distribution of activities – their size, quality, character and their ease of reach. The *New Zealand Urban Design Protocol* (UDP) (Ministry for the Environment 2005) observes (that) ‘physical conditions that give access are a combination of urban structure (with connectivity being a key factor), quality of space, and the relative proximity of activities and destinations’. Patterns of land use, the nature of the transport system and quality urban design are, therefore, fundamental to accessibility.

An activity’s level of accessibility is unique to each individual and may be influenced or limited by many factors (or barriers), which together comprise ‘travel horizons’⁵. These include:

- the geographic locations of activities and those needing to reach them
- availability of transport alternatives
- physical accessibility of places and/or transport
- travel cost
- travel time
- knowledge
- personal safety and security concerns (Centre for Transport Studies 2006).

As accessibility is critical to ensuring that people can participate fully in society, it is often planned for and assessed from the perspective of those groups most susceptible to social exclusion. Table 3.1 lists groups commonly identified as being at risk, along with some of the access issues relevant to them. Individuals who are members of more than one of these groups would be particularly vulnerable to social exclusion.

⁴ This paper uses the term ‘activities’ as a general label for all activities, goods, services and destinations that are needed by individuals.

⁵ Travel horizons are artificial (often self-imposed) travel boundaries that define the area in which an individual will travel and are usually related to socio-economic circumstances.

Table 3.1 Groups at risk of accessibility-related social exclusion.

Group	Relevant issues
People on low incomes	Includes some working and most non-working people (eg unemployed, sick, carers, single parents) Children, young people and the elderly are particularly affected Problems can continue from one generation to the next
People without access to a car	Travel less distance and less often than those with cars Report far greater access problems than car users A significant proportion of the population do not drive as they are too young or old Even in car-owning households, some people do not have regular access to a car
Disabled people	A significant group (one in five) when all disabilities are taken into account Many disabled people experience poor access to work, education and services such as banking, as well as poor mobility through transport problems Improvements to infrastructure and public transport that are crucial for the disabled benefit everyone
Children and young people	Are least likely to be car owners Have high mobility needs but often rely on others to have them met May be unhappy to be dependent on others, but have low personal incomes Unemployment at a young age adversely affects their chances for getting good work later in life Access to education is an important factor Can include those in tertiary education
Older people	The proportion of older people is increasing Accessibility is the key to maintaining self-sufficiency and independence The nature of the walking environment is crucial Improved public transport and targeted road safety and parking interventions are also important Amending the provision of existing services may be effective alongside, or instead of, transport related solutions
Minority groups and new migrants	Suffer the same accessibility problems faced by other sections of the community May need to access specific meeting and religious venues and food shops Elderly especially may have limited command of the English language Face specific cultural issues
Rural people	High average car ownership and income belies low car availability and income of some individuals Longer distances mean higher travel costs, regardless of the mode of transport Lower population densities tend to mean fewer services since 'demand' does not appear to justify local provision Statistics New Zealand classifies 14% of the population as living in rural areas

Source: *Within reach 2006*, Booz Allen Hamilton 2006

It is worth noting that individuals within the groups identified in table 3.1 are not necessarily suffering social exclusion, but they are likely to have a higher risk of it. Furthermore, these groups collectively comprise a substantial part of the population. If planning for accessibility

enables such groups and individuals to access the activities they need to, then all segments of the population are more likely to be able to participate. While certain aspects of improving access may focus on specific groups of the population, it is desirable to undertake accessibility planning in order to improve access for all members of society.

Accessibility should be distinguished from mobility, a term that it is usually associated and often confused with, which relates to ease of movement rather than ease of reach. Mobility reflects the spatial structure of the transport network and the level and quality of its service. It includes movement by active modes, public transport and personal motor vehicles and is evaluated based on characteristics including travel distance, speed, road capacity and traffic volume. Mobility is an aspect of accessibility as, in general, the more you can travel the more activities you can reach.

As a planning goal, accessibility allows for the evaluation of trade-offs between land use, transport and social needs. It focuses attention on the level of service of the 'system' as a whole, rather than on aspects of the transport system only. This differs from traditional transport planning, which tends to focus on improvements to the transport system that facilitate mobility, without considering the access needs that drive travel behaviour.

3.2 Accessibility planning

3.2.1 Definition of accessibility planning

The concept of planning for access is not new. Traditionally it was undertaken from a mobility perspective, in response to a particular need, where 'need' equalled demand, and was therefore volume focused. For example, if many people needed to get from the same origin to the same destination then a road was built or public transport provided. Planning for access has evolved to focus on the severity of need, resulting in access being provided for people currently unable to reach identified activities (Withinreach 2006). For example, the Ministry of Education review of the school bus contracting and tender process has resulted in the development of a process to allow fare-paying passengers on school buses. This will align the school bus policy with the NZTS, particularly the goal for sustainable transport. It will also potentially reduce the number of vehicles on the road and may benefit the transport-disadvantaged in communities where traditional public transport services are not financially viable (Ministry of Education 2007).

Accessibility planning can be simply defined as a structured process for the assessment of, and planning for, accessibility. It can take many forms, be applied across the entire population or to specific groups (eg the socially excluded) and be undertaken at different spatial levels, for example from transport and land-use planning at a regional level down to curb design and public transport vehicle quality standards. Regardless of the level at which it is undertaken, accessibility planning involves the assessment of the location and delivery of key activities and the transport links to and from them. Thus, the 'assessment of accessibility is the measurement of how easy it is for a traveller to reach a desired activity, based on a set of measurable indicators' (Abley Transportation Engineers 2007). This allows the adequacy of access to be gauged from both origin and destination perspectives and any accessibility problems or barriers to be identified and addressed. As accessibility planning provides an understanding of the accessibility characteristics of different origins and destinations and the

factors motivating travel behaviour it is very useful for achieving public policy goals in these areas.

Accessibility planning has become more widely accepted in the last 10–15 years, spurred by a number of factors:

- Accessibility has become better defined and understood as a concept.
- New technologies, for example geographical information systems (GIS), have allowed accessibility to be better assessed.
- Inadequate accessibility is linked with broader societal problems, such as health inequity, employment inequity and wider issues of social exclusion.⁶

The last of these points is particularly important, as transport equity is a key driver of accessibility planning in the United States, while social exclusion is the key driver in Great Britain. While there may be different political drivers behind the establishment of accessibility plans, the common aim is to effect outcomes that improve the quality of life for the target population. Determining the key driver behind the introduction of accessibility planning in New Zealand is a political discussion that has yet to take place.

3.2.2 Implementing accessibility planning

To be successful, accessibility planning must be horizontally and vertically integrated across government and involve multiple stakeholders throughout the development, implementation and monitoring processes. This includes central government agencies responsible for transport planning, regulation and funding as well as those covering social and economic portfolios including health, education and housing. These agencies are responsible for setting policy and developing top-down guidance and core (national) accessibility indicators. Central government must work with regional and local government as well as the private sector and a range of stakeholders to ensure a cross-sectoral approach is taken that meets national outcomes without negatively impacting on those of the stakeholders and the 'end users' (ie the people).

Regional and local government agencies are responsible for developing and implementing local accessibility plans containing relevant and specific indicators. They work with a wide range of local not-for-profit organisations, commercial and stakeholder groups to ensure the needs of the community are recognised and met.

Accessibility planning typically uses a structured, evidence-based and measurable assessment process, which includes:

- undertaking an accessibility audit, referencing existing information to identify barriers to accessibility
- undertaking a resources audit to identify the resources, including financial and existing services and facilities, available to address the barriers

⁶ Social exclusion is defined as 'the collective processes that prevent individuals from fully participating in society'. This goes beyond the problems of health, poverty or deprivation to encompass all ways in which 'life chances' are affected by exclusion from the social, economic and political mainstream.

- developing a plan of agreed initiatives, with responsibility and accountability clearly assigned
- monitoring progress of the accessibility action plan.

Most plans use tools such as GIS to systematically assess a range of accessibility-related information and assist in the development of a set of accessibility indicators. This enables actual accessibility to be assessed against the indicators, which in turn allows accessibility problems to be identified, addressed and monitored. When fully developed the process is a continuous one and provides evidence of changes in accessibility over time. Inputs to the process are quantitative and qualitative, and include:

- socio-demographic data
- data relating to transport availability and reach – by private vehicle, public transport and/or active modes
- data relating to the location and availability of specific activities, often including healthcare and education facilities, employment, shops and community facilities
- qualitative surveys and feedback.

3.2.3 Measuring accessibility

The measurement of accessibility is an important component of most accessibility plans as it provides evidence that guides the planning process as well as tracking progress once the plan is implemented. It is used to assess the ease with which an individual, particular group or community can access activities from a specified location (origin) using the available modes of transport. Accessibility is typically measured against benchmark standards known as accessibility measures or indicators, which are defined for any aspect of accessibility that is identified as relevant to the specific situation. Such indicators may be considered individually or collectively and can be used to create an accessibility index to allow comparison and ranking of population groups or geographical areas, or mapped to provide a visual tool to aid the planning process.

Quantitative measures are the most common type of accessibility indicator and form the basis of accessibility assessment. Indicators can be grouped into three main categories⁷:

- Transport system access (TSA) indicators: Already commonly used in New Zealand, these measure private transport (eg car ownership) and the ease of access to a network, usually the public transport network (eg the distance from home to the nearest bus stop or railway station). TSA indicators are useful for providing an overall picture of access to public transport and for calculating the catchment of an activity centre.
- Threshold or opportunity indicators: Simple to implement, these combine travel characteristics (eg distance, travel time or cost), socio-demographic information and activity information (eg the number of jobs available at an employment location), to assess levels of access to an activity, or alternatively, the number of activities available to the household. Accessibility is expressed as bands or thresholds around the activity

⁷ The international literature is inconsistent with regards to the naming of accessibility indicators – this study uses those that are most prevalent.

centre or residential location. These thresholds can be plotted in map form with other data overlaid, enabling the identification of groups with accessibility problems.

- **Continuous or gravity-based indicators:** These provide an indication of relative attractiveness of a location in terms of accessibility to an activity type (eg reflecting that a close activity is likely to be more attractive than one of the same type located further away). Accessibility is calculated as an index, which can be mapped to show varying levels of ease of access. These indicators incorporate characteristics of both travel and activities along with a continuous deterrence function or weighting, which reflects the deterrent effect of increased distance, travel time or cost of travel. Continuous indicators enable accessibility to a range of activity centres to be encompassed within a single measure. In contrast, threshold indicators tend to consider the nearest opportunity and are therefore better able to reflect the degree of choice available to a household.

Qualitative surveys are used to supplement quantitative measures. They allow for the consideration of factors such as concerns about safety or crime, awareness of the availability of information, limits to travel horizons and perceptions about the quality of services. Survey results provide an understanding of the significance of particular problems to a population group, especially vulnerable or hard-to-reach groups, and obtain data on services and facilities not covered by existing data sources.

3.2.4 Other considerations

Decision makers should also consider the following when agreeing on the level of application of accessibility planning:

Requirement: Although existing planning approaches have been largely successful in achieving the objectives set in the past, the changing transport environment requires that more consideration be given to issues of accessibility in the future. Factors to consider include escalating travel costs relating to climate change and increased demand for oil, population growth, associated pressures on urban expansion and demographic changes in society, particularly the ageing of the 'baby boomer' group. Not planning for accessibility will have implications for the baby boomers as physical (personal) limitations will make mobility more difficult for them as they age.

Direction: The key driver of accessibility planning is ultimately a political decision. Policy makers must decide the outcomes they wish to achieve (ie reduce social exclusion, improve access equity, or achieve other goals) and whether these outcomes are to apply universally or only to certain groups, for example urban/rural areas, the elderly, people with disabilities. This in turn drives such considerations as organisational responsibility, process design and, most importantly, the selection of the accessibility indicators that inform the process.

Cost: As with any new policy requirement the adoption of accessibility planning imposes an additional burden on government, particularly at the regional/local levels, and this inevitably has cost implications. While the benefits may offset such costs there must be consideration of the cost impacts of any decision to implement accessibility planning.

Assessment balance: The process of using assessment to inform decision-making involves a balance of quantitative and qualitative work, which changes at each step. Due to the nature of

qualitative information, this component of accessibility assessment is potentially highly political.

3.2.5 Benefits

Accessibility planning offers the following key benefits as a transport and land-use planning tool:

- It is a form of integrated planning.
- It focuses the planning process on the requirement for and context of travel by considering the location, design and delivery of all key services in the area or for the group it is applied to.
- It provides a method for assessing access equity as it considers the needs of all groups, including those considered vulnerable to exclusion.
- It encourages coordination between transport and other public policy objectives, for example housing, health and education (Lucas 2005).
- It provides an additional/alternative method for evaluating the impacts of land-use projects or transport service changes, enabling the social implications of these to be fully assessed.
- It has the ability to deliver positive economic and social (and environmental) community outcomes.

How these benefits are realised is explored in the following chapter, which investigates the application of accessibility planning in three different countries.

4. International practice

4.1 Introduction

The application of accessibility planning varies considerably within and between countries. This is understandable given that the practice has only gained prominence in recent years. However, the international experience can be grouped into three broad categories or methods, which this research labels as ‘comprehensive’, ‘limited’ and ‘regulatory’ approaches to accessibility planning. These are summarised below, then each is expanded on in case studies from England, Southern California and the Netherlands. While each of these countries differs from New Zealand in their population densities and geographic spread, the case studies are selected to illustrate the various political drivers that accessibility planning can address and the processes currently employed to do this across a range of developed countries and population sizes.

Comprehensive accessibility planning: This is when planning for accessibility is fully integrated into the transport and land-use planning system. This category is best exemplified by the approach taken in Great Britain, particularly in England, where accessibility planning is used to inform all levels of transport planning from the development of local area transport plans to the evaluation of projects and land developments. Accessibility planning is applied in all areas – urban and rural – and is undertaken by local government, with guidance, coordination and monitoring at the national level. The initiative is driven by social objectives and is focused on delivering solutions to social exclusion. England is regarded as being at the forefront of the application of accessibility planning as, internationally, it has most comprehensively adopted accessibility planning as a formalised planning process.

Limited accessibility planning: The most common form of accessibility planning, it is undertaken in a limited manner, with the level of application varying widely. However, all approaches involve the monitoring of accessibility using a limited range of indicators and the use of the results to inform the transport planning process in some way, typically to assess transport equity. In this situation, planning often varies considerably within countries, and lacks any real coordination or monitoring at the national level. The limited approach is not generally used for evaluation at a project level. A good example of this type is the approach taken by Southern California in the United States.

Regulatory accessibility planning: A very different approach from those defined above, this usually involves planning using regulation or land-use zoning, primarily to reduce avoidable car mobility while ensuring access to economic activity centres. The regulatory approach does not make use of indicators of accessibility or follow an assessment process in the way that the comprehensive and limited variations of accessibility planning do. This category is best exemplified by the approach taken in the Netherlands, where land use in urban areas is categorised according to its location and its accessibility via public transport.

Table 4.1 summarises each category against seven key criteria that are important in accessibility planning: organisational responsibility; influence at a local level (ie on area plans); assessment frequency; spatial focus; modal focus; use of indicators; and influence on project evaluation.

Table 4.1 Accessibility planning categories.

Criteria	Comprehensive	Limited	Regulatory
Organisational responsibility	Multiple levels of government	Varies	Varies
Influence at local level	Significant	Varies	Significant
Assessment frequency	Continuous	Varies – generally semi-frequent	Infrequent
Spatial focus	All areas	Varies – usually urban	Urban
Modal focus	Wide	Varies	Varies
Use of indicators	Extensive	Partial	Uncommon
Influence on project evaluation	Significant	Varies	Not directly

4.2 Comprehensive accessibility planning: England

Sources: Booz Allen Hamilton 2006, Department for Transport 2006a and Withinreach 2006 (unless noted otherwise).

4.2.1 Background

Great Britain, particularly England, is the country that is most often associated with the modern application of accessibility planning as it has most comprehensively adopted accessibility planning as a formalised planning process. It therefore provides the best illustration of the concept as applied in practice and, consequently, this paper focuses on the experience from that country. It should be noted that accessibility planning is still in its infancy there and that, although experience to date provides valuable insight into the approach, it is still too early to gauge the success or otherwise of the approach in the longer term.

Accessibility planning in Great Britain is closely associated with social exclusion and reflects a social policy agenda. It is the result of policy developed since the early-1990s but, as a mandated planning process, it originated from a report into the relationship between transport and social exclusion, *Making the connections*, produced by the British Government's Social Exclusion Unit (SEU) in 2003. This identified accessibility as an issue and laid out a new government accessibility strategy recommending the development of an accessibility planning framework and other policy changes to address barriers to accessibility, specifically affecting socially excluded communities. The British Prime Minister, in his forward to *Making the connections*, said that accessibility planning

offers a new way to find and solve local problems, checking whether people experiencing social exclusion can reach the services they need, and identifying action to take if they can't. Action could be through improving public transport, introducing more innovative travel options, or changing the location or delivery of the services people need (SEU 2003).

Each part of Great Britain has responded differently to the delivery of accessibility planning. This case study explains the key features of accessibility planning as implemented in England (outside of London – as proposed by the SEU and accepted by government) in response to the SEU report's recommendations. Wales and Scotland have taken independent but similar approaches, reflecting the devolution of the governance of these areas.

4.2.2 Organisational responsibility

The English accessibility planning framework revolves around accessibility assessments and the development of accessibility strategies and plans which are undertaken at the local level by local transport authorities (LTAs)⁸ in partnership with central government and other interested parties. Assessments follow a standardised structured approach and identify barriers to accessibility and potential solutions to them. Assessments are undertaken in both urban and rural areas, with the results used at the strategic level to direct general transport and land-use planning and for the identification and evaluation of projects at later implementation stages. LTAs produce accessibility strategies as an outcome of the assessments and these form the basis of the local transport plans (LTPs), which set out transport policy for an area⁹. The first full accessibility strategies and associated LTPs were produced in 2006.

The other organisation with a key role in the English accessibility planning framework is the Department for Transport (DfT), which leads central government involvement. This agency provides coordination between the multiple central government agencies with an interest in accessibility; it guides LTAs on accessibility assessment and transport project appraisal; and undertakes measurement at the national level. It also ensures that any transport solutions introduced are consistent with the shared central-local government priorities of safety, accessibility, improved air quality and reduced congestion, and that accessibility solutions are in line with other government priorities around reducing the need to travel (Withinreach 2006).

4.2.3 Process

The recommended process for accessibility planning consists of five interlinked stages:

1. Strategic accessibility assessment: The identification of strategic priorities and development of requirements for subsequent, more systematic assessments
2. Local accessibility assessment: Assessment at a more detailed level, focusing on the previously identified areas of priority, population groups and problems
3. Option appraisal: Assessment of options that address identified accessibility problems
4. Accessibility plan preparation: Production of an action plan that prescribes a specific path for improvement
5. Performance monitoring and evaluation: Ongoing monitoring of accessibility levels using standardised accessibility indicators.

Figure 4.1 provides an overview of this process showing the key tasks, activities and external inputs (stakeholder involvement and national and local indicators) at each stage. Table 4.2 provides additional detail, showing the purposes and actions associated with each stage.

⁸ Local government agencies with responsibility for transport planning in their area.

⁹ LTPs specify transport strategies, policies and an implementation programme for an area and are produced on five-yearly cycles. These are broadly analogous to the transport programmes proposed through legislative changes, which will support regional land transport strategies produced by the regional councils in New Zealand.

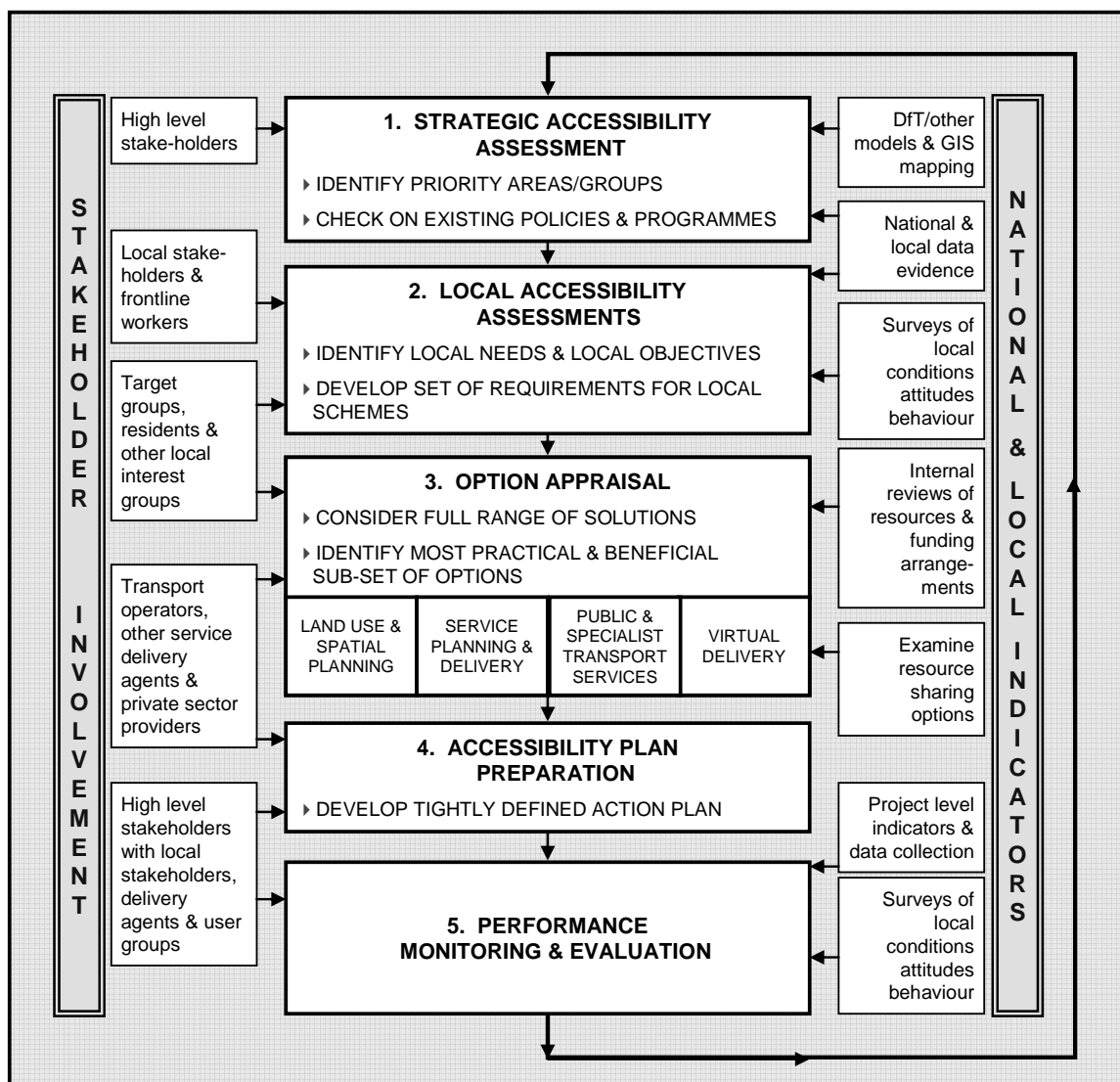


Figure 4.1 The English accessibility planning process – key stages and inputs.

Source: DHC and University of Westminster 2004.

Table 4.2 The English accessibility planning process – stage purpose and actions

Stage	Purpose	Actions
Stage 1: Strategic accessibility assessment	<p>To address accessibility issues in a systematic and objective manner.</p> <p>To identify priorities requiring targeted actions.</p> <p>To evaluate the extent to which existing funding streams, projects, programmes and policies serve accessibility needs.</p> <p>To 'mainstream' accessibility and equity issues into a wide range of transport strategies.</p> <p>To 'mainstream' accessibility and equity issues into decision-making, strategies and scheme delivery in non-transport sectors.</p>	<p>Strategic mapping audits for the main destination types.</p> <p>Theme-specific strategic level partnerships consider the audit findings and review existing knowledge on accessibility issues.</p> <p>Prioritisation of areas, population groups and issues for further action.</p>
Stage 2: Local accessibility assessment	<p>To undertake a detailed local assessment focusing on the priorities identified at the strategic stage.</p> <p>To quantify the scale of the problems, identify local areas for action and stakeholders who should be involved in a partnership to address these problems.</p> <p>To guide development and delivery of appropriate, cost-effective and sustainable schemes, and initiatives to improve accessibility.</p>	<p>Review of existing local evidence.</p> <p>Local mapping audits.</p> <p>New surveys and research: consulting communities, clients and user groups.</p>
Stage 3: Option appraisal (and identification of resources) and Stage 4: Accessibility plan preparation	<p>To identify a set of locally appropriate actions to tackle identified accessibility priorities.</p> <p>To identify short- and long-term options which have the greatest benefits and most practically can be carried forward to implementation.</p> <p>To refine potential actions into tightly defined actions, time scales, resources and targets, and lead delivery partners.</p>	<p>For the proposed actions identify:</p> <ul style="list-style-type: none"> • accessibility impacts • barriers to implementation • resources available to support the action • the stakeholders necessary to take it forward. <p>Agree action plan of specific schemes to improve accessibility.</p> <p>Incorporate accessibility considerations into policy, planning and delivery in the wider transport and non-transport sectors.</p>
Stage 5: Performance monitoring and evaluation	<p>To establish accessibility indicators, targets and monitoring frameworks that will demonstrate the contribution made by the proposed actions towards delivery of accessibility objectives.</p>	<p>Monitor progress at the strategic level through use of:</p> <ul style="list-style-type: none"> • core indicators • local outcome-based performance indicators. <p>Identify locally appropriate accessibility targets, based on either the core or local indicators, or both.</p> <p>Establish a set of project level monitoring indicators.</p>

Source: Department for Transport 2006a.

4.2.4 Indicators

Core, or national, indicators and local indicators support accessibility planning in England.

4.2.4.1 Core indicators

Core indicators are standard indicators, established by the DfT, that are used to measure and compare accessibility across LTAs on a national basis. Indicators have been calculated based on journey time by car, public transport, cycling and walking. There are six categories of core indicator, based on the journey purpose types identified by the SEU study as having the most impact on life chances:

- accessibility to school education
- accessibility to further education
- accessibility to work
- accessibility to a hospital
- accessibility to a doctor
- accessibility to a supermarket/food store.

All LTAs are required to use these as the basis for local assessments and to provide data to the DfT for comparison at the national level. The initial set of indicators was produced in 2004 and a subsequent set in 2005. These are to be re-calculated every one to three years going forward.

Each indicator set is calculated using both threshold and continuous measures. Indicators are calculated for a 'main' population group and a particular 'risk' group within each category, with the exception of the further education category where only a main population group is examined. The risk groups provide a proxy for individuals/groups considered vulnerable to accessibility-related social exclusion.

Thresholds used are based on travel time by public transport during the morning peak period (7–9 am). For this purpose 'public transport travel time' is defined as being either the travel time by a public transport mode (eg bus) inclusive of walk time to/from stops, by flexibly routed services available to the public, or the corresponding walk time (ie it is assumed that people will walk if that travel time is quickest). An additional aggregate indicator incorporating cycling is calculated only for the secondary education, further education, work and supermarket/food store categories, as this mode is considered a viable alternative for these journey purpose types. A maximum walk distance of 2 km applies to rural areas.

The core indicators and associated thresholds are listed in table 4.3. The lower threshold represents a median travel time, as measured in the *National travel survey*¹⁰. The upper threshold is set at twice the lower threshold so should incorporate the majority (80–90%) of trips. Thresholds are monitored to assess change over time, to establish whether accessibility improves or deteriorates in each area.

¹⁰ The *National travel survey* is a continuous travel diary-based survey of personal travel, which has been used to generate distributions of travel time for actual trips corresponding to each journey purpose category. New Zealand has a similar *Household travel survey*.

Table 4.3 Core indicators.

Category	Sub-group	Indicators and associated thresholds
Accessibility to school education	Primary	% pupils of compulsory school age within 15 minutes and within 30 minutes of a primary school by public transport (PT)/walking. % pupils of compulsory school age in receipt of free school meals within 15 minutes and within 30 minutes of a primary school by PT/walking.
	Secondary	% pupils of compulsory school age within 20 minutes and within 40 minutes of a secondary school by PT/walking and by cycling. % pupils of compulsory school age in receipt of free school meals within 20 minutes and within 40 minutes of a secondary school by PT/walking and by cycling.
Accessibility to further education		% 16–19 year olds within 30 minutes and within 60 minutes of a further education establishment by PT/walking and by cycling.
Accessibility to work (no differentiation between types)		% people of working age (16–74) within 20 minutes and within 40 minutes of a location with greater than 500 jobs by PT/walking and by cycling. % people in receipt of jobseekers' allowance (unemployment benefit) within 20 minutes and within 40 minutes of a location with greater than 500 jobs by PT/walking and by cycling.
Accessibility to a hospital		% households within 30 minutes and within 60 minutes of a hospital by PT/walking. % households without access to a car within 30 minutes and within 60 minutes of a hospital by PT/walking.
Accessibility to a doctor		% households within 15 minutes and within 30 minutes of a GP by PT/walking. % households without access to a car within 15 minutes and within 30 minutes of a GP by PT/walking.
Accessibility to a supermarket/food store		% of households within 15 minutes and within 30 minutes of a supermarket/food store by PT/walking and by cycling. % of households without access to a car within 15 minutes and within 30 minutes of a supermarket/food store by PT/walking and by cycling.

4.2.4.2 *Local indicators*

Core indicators do not provide a complete picture, because they do not include many of the factors that influence accessibility. The range of core indicators is limited by the consistency of nationally available data and by the need to keep the number of indicators at a manageable level to enable comparison. Development of local indicators supplements the core indicators and provides additional information specific to the local area being assessed. Individual LTAs are encouraged to select these to reflect local data requirements and availability.

The DfT suggests the following as potential subjects for local indicators:

- characteristics of specific defined areas, neighbourhoods or communities, rural versus urban, level of deprivation etc
- accessibility influences: the cost of travel, level of safety and comfort associated with travel routes, continuity and quality of travel routes, fear of crime, timing and mode of service delivery, opening/closing times of services, reliability of public transport routes or

services, overcrowding of public transport services, travel horizons, travel and service information provision and awareness

- information on additional risk groups or household types: older people, those with disabilities, those with limiting illnesses, lone parents, low-income households, ethnic minorities etc
- alternative types of activities: convenience stores, places of worship, childcare facilities, cultural facilities, leisure/recreational facilities, pharmacies, post offices, libraries etc
- alternative transport modes or transport attributes: school transport, community/voluntary transport, taxi services, integration between the modes, the facilities available at modal interchange points etc
- alternative time periods, days of the week or times of year: early mornings or late nights for access to employment by shift workers, or summer in tourist locations etc
- alternative forms of service delivery: home delivery, mobile services, neighbourhood visits etc
- the attractiveness or quality of a service or facilities: the quality of education, health treatment, employment, or food etc.

Table 4.4 provides examples of local indicators suggested by accessibility planning pilot studies in Great Britain.

Table 4.4 Examples of local indicators

Type	Example indicator	Potential uses
General access to services and facilities	% of population able to reach city/town centre in 30 minutes.	Monitor impact of additional bus routes to city centre/market town facilities and services.
	Number of daily bus journeys to city/town centre.	Monitor changes in bus access to facilities and services.
Pedestrian access	Number of pedestrian journeys to city/town centre/hospital/school.	Monitor impact of improvements to pedestrian environment.
Physical access	% total bus network served by fully accessible low floor vehicles.	Intermediate indicator to monitor progress in target to implement fully accessible low-floor vehicles on whole network.
	Number of bus stops and transport interchanges that meet good practice standards for access by disabled people.	Intermediate indicator to monitor progress with target.
Satisfaction	% of passengers satisfied with bus service (reliability, safety, information, condition, etc).	Monitor impact of improvements (eg improved reliability, information, bus stops).
	Number of complaints from users relating to PT service reliability.	Intermediate measure to monitor bus service reliability.
Group specific	% of young people with access to public transport in the evenings and at weekends.	Monitor impact of improved availability of evening and weekend services for young people.
Affordability	Cost of bus fare per mile to a destination relative to equivalent petrol and parking cost/taxi fare.	Monitor relative affordability of public transport services.

Type	Example indicator	Potential uses
	Take-up of non-statutory concessionary fares by job seekers/young people/carers etc.	Monitor impact of non-statutory concessionary fare interventions.
Information	% of bus stops with travel information displays. % job centres and GP surgeries in receipt of travel information. % of hospitals offering travel information service to patients and visitors.	Monitor access to information.
Economic impact	Accessibility (to employment) of unemployed residents in a regeneration area.	Monitoring accessibility of new job opportunities for targeted groups.
E-accessibility	% of population able to access the internet and use a credit card to order home food deliveries.	Inform policy on the effectiveness of home delivery systems.
Crime/fear of crime on and around public transport	Number of incidents recorded on public transport. Proportion of people who feel unsafe walking in their neighbourhood at night.	Monitor effectiveness of measures to reduce crime and fear of crime on and around public transport. Monitor effectiveness of reducing fear of crime.

4.2.4.3 *Local targets*

As well as setting relevant local indicators, which provide a picture of the current situation and keep track of changes, LTAs must set targets to state how the indicators are to change (ie an increase, decrease, or no change) and by how much. Targets focus efforts, enable the tracking of progress and communicate this progress to a wider audience. An accessibility action plan is developed and implemented to ensure targets are met. It is developed based on the priorities determined in the assessment process using the selected indicators.

Setting indicators and meeting targets demonstrate the success of an accessibility plan or a particular project, but the overall aim of accessibility planning is to achieve outcomes, ie to improve the quality of life for the people living in the area. Outcomes are temporal, with different actions delivering outcomes at different time intervals and different levels of government. Figure 4.2 illustrates how different solutions, potentially implemented by different partnerships or by different parts of the LTA, can interact to contribute to one all-encompassing, long-term outcome at a local and national level. One solution could also contribute to several outcomes at each level.

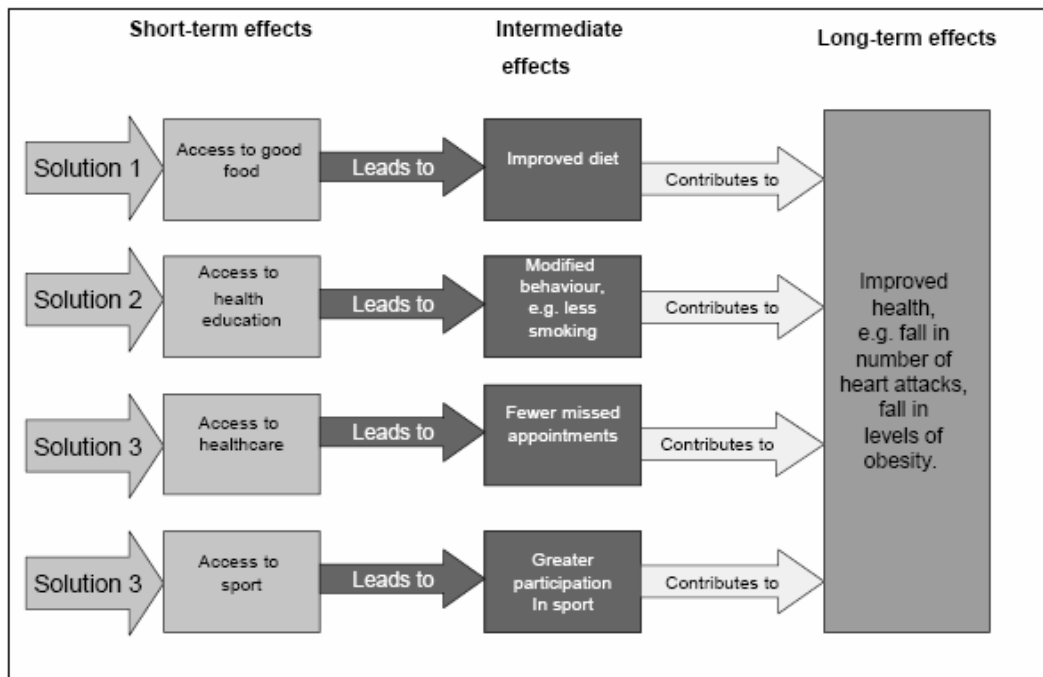


Figure 4.2 Interaction between short-, medium- and long-term outcomes of accessibility solutions

Source: Withinreach 2006

4.2.5 Accessibility strategy and plan development

The DfT guidance outlines what is required in an LTA’s accessibility strategy. This includes:

- a high-level vision and objectives, including the approach to be taken and priority to be placed on accessibility problems within the LTP area
- how the accessibility objectives link with and are integrated within the LTA’s wider vision and objectives (eg for economic and social development, health, housing, education)
- the implications of wider transport policies and strategies on accessibility
- how accessibility considerations will be incorporated in wider transport policies and strategies
- an improved analytical evidence base of current accessibility levels, by all modes, within the LTP area. This is at a strategic level and utilises deprivation, socio-demographic, economic and accessibility data
- prioritisation of the identified problems and an explanation of why specific problems, groups, areas or destinations are prioritised
- a phased programme for improving accessibility, including timeframes for addressing the priorities over the remaining LTP period
- evidence that partners are engaged in the process
- in-depth local accessibility assessments around the priorities and a local accessibility action plan developed jointly with partners

- local indicators and targets for measuring and monitoring accessibility, which support the objectives of improved accessibility overall and for those most in need. An explanation of how the indicators and targets were derived is also required.

Local action plans must contain focused, tightly defined tasks with realistic timeframes, specify the resources required and the targets to be met, and list the parties responsible for delivery, including the lead partners. Action plans are included in the LTP so they should set out the actions over the latter's five-year period and identify where any action will run into the next LTP.

Given the relationship between the LTP and action plan, it is critical that the accessibility strategy is consistent and integrated with the LTP, with the latter's objectives setting the context for those in the accessibility strategy. Accessibility strategies evolve over time as new priorities are identified and existing ones addressed. This requires the ongoing assessment and development of action plans to meet the targets and deliver the desired outcomes.

4.2.6 Key features of accessibility planning in England

The English approach to accessibility planning:

- focuses on addressing social exclusion
- is outcome driven
- has a structured and systematic process
- assesses a wide range of aspects of accessibility
- uses standardised indicators of accessibility
- features a standardised national approach
- requires the development and maintenance of partnerships which include stakeholders from all levels of government, sectors and the community
- has a continuous process
- provides for comparative analysis of geographical areas across the country
- provides for comparative analysis across different population groups
- provides guidance, monitoring and coordination at the national level
- is an integral part of the planning process, as it is used at all stages of the planning cycle, from the strategic level to the project evaluation level.

4.3 Limited accessibility planning: Southern California (United States)

Sources: Booz Allen Hamilton 2006, Southern California Association of Governments 2001 and 2004, US Department of Transportation 2000.

4.3.1 Background

Accessibility in the United States is closely linked to the issue of 'transportation equity', and is primarily aimed at achieving equality of opportunity and/or enabling access to services in

order to reduce overall costs. There is no formal accessibility planning policy as such; however, a range of federal policies implemented over the last two decades has encouraged transport planning agencies to take account of accessibility as an issue. Key amongst these are the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA), which set the stage for an integrated approach to transport planning, the ensuing 1998 Transportation Equity Act for the 21st Century (TEA-21), and ‘environmental justice’¹¹ initiatives that date from the mid-1990s but relate to Title VI of the Civil Rights Act of 1964.

The lack of a formal national accessibility planning policy, the non-prescriptive nature of the above policies and the decentralised nature of government in the United States have all helped to focus accessibility-related initiatives at the state and local levels, where agencies are free to devise appropriate methods and measures to suit their transport planning requirements. Initiatives in this area are, therefore, highly variable and are focused on the larger metropolitan areas for which metropolitan planning organisations (MPOs) have transport planning responsibility.

Due to the variability in the application of accessibility planning approaches, this case study concentrates on the approach taken by one of the larger MPOs – the Southern California Association of Governments (SCAG). SCAG is the designated MPO for six Southern Californian counties including metropolitan Los Angeles and the surrounding region. It is responsible for approximately one quarter of California’s total area and nearly half of its population. The region includes urban areas, which contain a wide variety of land-use patterns and conditions and uninhabited mountains and deserts. SCAG was an early adopter of accessibility initiatives and its experience is often used to illustrate accessibility practice in the United States.

4.3.2 Organisational responsibility

Federal policies place the key responsibility for transport equity (and consequently accessibility) assessments on state and regional transport planning agencies such as MPOs. These organisations are required to perform equity assessments when they produce long-range 20-year transport plans – regional transportation plans (RTPs) – which must address a range of criteria including accessibility. Such plans must be reviewed and updated on a regular basis and be produced with community participation. The states and MPOs are also required to certify annually to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) that their planning process addresses major regional issues and is conducted in accordance with the environmental justice requirements of the Civil Rights Act. The FHWA and the FTA jointly review and evaluate each area’s planning process at least once every three years and have the authority to approve the process and/or specify corrective actions. Furthermore, they can withhold highway and transit (public transport) funds and project approval if they determine that the planning process does not substantially meet equity requirements.

4.3.3 Process

The RTPs produced by SCAG have a 20+ years planning horizon and are updated every three years. SCAG has produced three RTPs since the equity requirement was introduced – the initial 1998 *Regional transportation plan: CommunityLink 21*, the replacement 2001 *Regional*

¹¹ Environmental justice is concerned with identifying and addressing the effects of federally funded transport programmes, policies and activities on minority (ethnic) and low-income populations.

transportation plan: CommunityLink 21, and the current 2004 *Regional transportation plan: Destination 2030*. Each is a refinement on the previous version, particularly concerning accessibility.

Accessibility is incorporated into the SCAG RTPs in two ways. It is one of a range of system performance outcomes (seven in 1998, 10 in 2004) showing the extent to which the RTP is successful in improving transport at a system level. Secondly, the detailed accessibility assessments carried out during RTP development provide a gauge of the equity effects of transport investment decisions on particular minority and low-income populations, showing how different types of users receive benefits. These assessments are undertaken in line with the environmental justice requirements of the Civil Rights Act and federal planning regulations.

The assessments carried out during RTP development are a form of scenario planning as they determine the change in accessibility (and other aspects of equity) between a base year, a baseline future case (future situation if no plan is adopted) and the proposed plan future case. Accessibility is measured by mode of travel (car and public transport), and separately by income class and ethnicity, for each traffic analysis zone at the sub-regional level and for the entire region. This identifies the extent to which the proposed RTP has a positive effect on accessibility for the different modes, areas and groups when compared with both the base year and baseline future year.

4.3.4 Indicators

Like the English accessibility indicators, the SCAG assessments use threshold and continuous indicators to measure accessibility in terms of the opportunities (activities) accessed within a given time range. However, SCAG indicators focus on access to employment, which is used to assess job accessibility and as a proxy for access to all opportunities. The actual definitions of accessibility, the ethnic and income groups targeted and the modes of transport have all changed with each of the three plans to date, reflecting the evolving nature of the process.

The 1998 RTP defined the headline accessibility indicator as the percentage of workers within 25 minutes travel to their jobs. In response to stakeholder input, two additional indicators were created to examine the equity aspects of accessibility in more detail. The first being a job accessibility indicator – the percentage of jobs within 30 minutes travel by car, and both 30 and 45 minutes by public transport. The other an ‘opportunity’ accessibility indicator – the percentage of jobs, essential services and shopping opportunities within 30 minutes travel by car, and 30 and 45 minutes by public transport. Three ethnic and three income groups were targeted.

The 2001 RTP defined the headline accessibility indicator as the percentage of jobs accessible within 45 minutes of door-to-door travel time during the PM peak. The equity indicator, based on the 1998 opportunity indicator, was defined as the percentage of retail and service jobs accessible within 30 minutes travel by car and 45 minutes by public transport. Locations of service jobs were taken as indicative of the locations of essential services such as banking, health services, auto repair, police and fire protection, and social services. Public transport was further subdivided into ‘all public transport’ and ‘low-cost public transport’ (excluding express bus and rail services) to take account of more limited access alternatives available to some groups. Five ethnic and five income groups were targeted.

The 2004 RTP used similar indicators to the 2001 RTP but standardised the threshold at 45 minutes for both indicator types and modes. Similar groups and modes were again surveyed.

Table 4.5 summarises the accessibility indicators, associated thresholds, modes and the groups assessed in the equity assessments for each of the three plans to date.

Table 4.5 SCAG accessibility measures

	1998 RTP	2001 RTP	2004 RTP
Headline accessibility indicator	% of workers travelling 25 minutes or less to work.	% of jobs accessible within 45 minutes of door-to-door travel time during the PM peak	% of the population able to travel between work and home within 45 minutes during the PM peak
Equity accessibility indicators	Job accessibility: % of jobs within 30 minutes by car, and 30 and 45 minutes by PT. Opportunity accessibility: % of jobs, essential services & shopping opportunities within 30 minutes by car, and 30 and 45 minutes by PT.	% of retail and service jobs accessible within 30 minutes by car and 45 minutes by PT	% of retail and service jobs accessible 45 minutes by both car and PT
Income groups	Below \$12,000 \$12,000 to \$25,000 Above \$25,000	5 equally sized income groups (quintiles)	5 equally sized income groups (quintiles)
Ethnic groups	African-American Hispanic Other	White African-American Asian/Pacific Islander Native American Hispanic Other	White African-American Asian/Pacific Islander Native American Hispanic Other
Modes	Car PT	Car All PT Low-cost PT (PT excl express bus and rail)	Car All PT Low-cost PT (PT excl express bus and rail)

4.3.5 Key features of accessibility planning in Southern California

The Southern Californian approach to accessibility planning:

- focuses on the issue of transport equity
- has a structured and systematic process
- uses standardised indicators of accessibility
- uses simple measures to assess a number of aspects of accessibility
- provides for comparative analysis of geographical areas within the region
- provides for detailed analysis of the equity effects of change on target groups

- is an integral part of the transport planning process, using scenario planning to determine long-range transport-related equity issues.

4.4 Regulatory accessibility planning: the Netherlands

Sources: European Academy of Urban Environment 2007, European Local Transport Service 2007, European Partners for the Environment 1996, Martens and Griethuysen 1999.

4.4.1 Background

The Netherlands' approach to accessibility planning is very different from those employed in England and the United States. It uses a measure known as the ABC location policy to classify land in urban areas according to its accessibility, with the goal of optimising land use in relation to public transport supply and demand for car use. It aims to reduce avoidable car mobility and ensuring access to economic activity centres. The approach is encapsulated by an alternative name for the process –'the right business in the right place'.

The policy, which came into force in 1989, has two key concepts:

- the proximity principle: the grouping of trip origins and destinations as close together as possible
- accessibility profiles: the locating of businesses (and urban developments) in the right places in terms of transport needs.

The policy is applied in cities of more than 100,000 inhabitants. These cities are encouraged to adopt a location plan that categorises land according to its transport accessibility. The national government funds projects that contribute to the goals of the plan, particularly land-use intensification such as inner-city redevelopment.

4.4.2 Organisational responsibility

The ABC location policy was developed at the national level, but it is applied across three levels of government:

- At the national level, the Ministry of Housing, Physical Planning and the Environment monitors the policy's implementation. It also approves and can direct changes to provincial spatial plans. The Ministry of Transport is responsible for the implementation of parking regulations used to enforce the plans.
- At the provincial level, governments produce spatial plans and approve local land-use plans. They also monitor the development of the real estate market, balancing supply and demand, and have the legal power to intervene to correct any imbalance.
- At the local level, governments produce land-use plans that incorporate the ABC policy and direct the spatial development of a city. Local governments, who decide the extent to which the policy is applied, also undertake the implementation of the policy. The level of implementation varies between cities.

4.4.3 Process

The core element of the ABC location policy is classification of locations and businesses according to their access requirements. Locations are graded according to their accessibility by public and private transport, which creates an 'accessibility profile', while businesses are graded according to their access needs and modal shift potential, creating a 'mobility profile'.

The location accessibility profiles are graded A, B or C:

- 'A' locations are highly accessible by public transport, and tend to be located at major public transport nodes such as central stations in large urban areas
- 'B' locations are reasonably accessible by both public transport and car, and are typically located on both public transport and road corridors
- 'C' locations have poor public transport accessibility, but tend to be located on main roads so are easily accessible by car.

The business mobility profiles are assigned to classes of business and relate to:

- site work intensity (the number of workers by surface unit)
- the mobility of employees (dependence on the car for business activities)
- visitors' intensity (the number of visitors by surface unit)
- dependence on the transport of freight.

The ABC policy aims to match accessibility profiles to mobility profiles, ie it seeks to locate each business at a location with an accessibility profile that matches its mobility characteristics. It does this by directing businesses that are looking for new sites to locations with matching accessibility profiles, and by improving the accessibility of locations to match the mobility profiles of existing businesses. Shops are ideally located in 'A' areas, offices in 'A' and 'B' areas, while 'C' areas are only intended for use by transport activities or land intensive activities. Limiting the available parking places at 'A' and 'B' locations enforces the policy. Table 4.6 defines the mobility characteristics for each location type.

Table 4.6 Matching of accessibility and mobility profiles

Mobility characteristics	Accessibility profiles		
	A-location	B-location	C-location
Work intensity	Intensive	Average	Extensive
Car dependency for business trips	Low	Average	High
Visitors' intensity	Intensive	Average	Incidental
Dependence on freight transport	Low	Average	High

4.4.4 Indicators

The Dutch system does not make use of indicators of accessibility.

4.4.5 Key features of accessibility planning in the Netherlands

The Netherlands approach to accessibility planning:

- focuses on the reduction of avoidable car mobility
- is regulatory by nature, using land-use zoning to achieve desired transport outcomes
- is a relatively simple process to apply and understand
- focuses on urban areas only
- guides both transport and land-use planning in the areas it is applied in
- provides a level of coordination and monitoring at both the provincial and national levels.

4.5 Summary

The three case studies profiled here illustrate just how varied the application of accessibility planning can be. Accessibility planning in Southern California is undertaken to address transport equity, so focuses on access to employment and opportunities from a mobility perspective. The assessment of mobility includes both car and public transport measures to account for the state's dispersed land-use patterns. The Netherlands approaches accessibility planning from a land-use perspective, using regulations and zoning within urban areas to classify locations and businesses according to their access requirements. This in turn determines the most applicable transport mode on which to access these locations. The English framework aims to reduce social exclusion across all geographical and societal groups. It focuses on public transport and, to a lesser extent, active modes as the primary means of mobility.

While each of these accessibility planning frameworks specifies a different primary driver and uses different approaches to address them, all share the same basic goal of improving access to activity centres. All three case studies recognise that accessibility planning is best undertaken at the local level, with some form of overriding national monitoring and guidance. Table 4.7 summarises the key components comprising accessibility planning in each of the three case studies discussed in this chapter.

This variety of approaches to accessibility planning provides a good platform on which to assess its potential application in New Zealand.

Table 4.7 Summary of accessibility planning in practice.

Criteria	England	Southern California, United States	The Netherlands
Accessibility planning type	Comprehensive	Limited	Regulatory
Driver	Social exclusion	Transport Equity	Reduce car mobility Ensure access to economic activity centres
Spatial focus	Urban and rural areas	Urban and rural areas	Urban areas only
Organisational responsibility	Local application National guidance, standards and monitoring	Regional design and application National monitoring	Local application Provincial and national monitoring
Used for area transport plan development	Yes - local transport plans	Yes - regional transportation plans	Yes - land-use plans
Assessment	Continuous in line with planning cycle One-off as required for projects	Individual, but repeated on a three-yearly planning cycle	One-off, but repeated as necessary
Process	Five-stage assessment using indicators and stakeholder input	Analysis of plan impacts on accessibility using indicators and stakeholder input	Allocation of accessibility rating to areas based on their location and use
Standardised indicators of accessibility	Yes - a range of standard national 'core' indicators Local indicators supplement these as required	Yes - selected locally to comply with national policies	No
Accessibility focus	Education, work, medical and food shopping	Jobs and 'opportunities'	Business location
Modal focus	PT Bicycle Walking	Car PT	Car PT
Used for project evaluation	Yes	No	No

5. New Zealand practice

Accessibility is an issue of concern for New Zealand policy makers and is being considered to varying extents by a range of organisations across government. However, the current approach to accessibility is somewhat piecemeal, largely uncoordinated and mainly focuses on monitoring rather than active assessment and planning. This section provides a brief outline of current¹² New Zealand practice and responsibilities, followed by a commentary on the recent changes to the government land transport sector and the associated legislative amendments, as these will have a bearing on any accessibility planning programme that is introduced.

5.1 Current government policies and roles

5.1.1 National strategies and policies

At the central government level, accessibility policy is guided by the NZTS, which sets out the government's overall vision for the transport system. In recognition of the importance of accessibility, one of the NZTS's five key objectives, 'Improving access and mobility', relates specifically to this field, although it focuses more on access to transport and movement (to reach activities) than access to activities per se:

The government will improve access to appropriate transport for all...in order to enhance participation and independence and reduce social exclusion', noting that 'lack of access can reduce individual or community ability to participate in activities' and that 'transport choice is important in allowing New Zealanders to take advantage of social and economic opportunities.

The NZTS makes particular reference to access as it relates to the elderly, the disabled, the young and the rural population; and identifies access to medical services, education, employment, rural primary health care and rural public transport as being of particular importance. It lists the development of a framework to measure improvements in access and mobility as an initiative to pursue.

There are a number of other government transport strategies with varying degrees of applicability to accessibility, the most relevant being *Getting there – on foot, by cycle. A strategy to advance walking and cycling in New Zealand transport* (Ministry of Transport 2005). The NZ Transport Agency (NZTA) is jointly leading *Getting there* with the Ministry of Transport, with stakeholders at all levels of government as well as various pedestrian and cycling advocacy groups actively involved in its implementation. The strategy contributes directly to the NZTS objective of 'improving access and mobility' as it aims to improve the environments necessary for walking and cycling, improve safety for pedestrians and cyclists and increase the choice of walking and cycling for day-to-day transport. These goals will be met through delivery of 10 priorities for action under the following focus areas:

- strengthening foundations for effective action
- providing supportive (physical) environments and systems

¹² As at January 2008

- influencing individual travel choices
- Improving safety and security (Ministry of Transport 2005).

The *Getting there – on foot, by cycle: Strategic implementation plan 2006–2009* (Ministry of Transport 2006) identifies a national direction and 10 new national initiatives for the first three years of the strategy's 10-year planning horizon. These 10 initiatives are being actioned by the NZTA and the Ministry of Transport, and will underpin progress across the four *Getting there* focus areas and its 10 priorities (Ministry of Transport 2006).

Access and accessibility are important issues in the wider government context in, for example, health, education, housing, social policy and employment. This reflects the government priorities of 'Economic transformation' and 'Families – young and old', which recognise the value of access and accessibility to the country's economic wellbeing and as enablers of participation and independence. A number of central government departments have policies aimed at creating a high-quality living environment, accessible by all sectors of the community. The following policy documents, containing actions associated with improving accessibility, guide the development of strategic priorities for New Zealand in the areas of residential development, transport, health and education:

Non-transport government strategies that highlight issues of accessibility and reflect its importance in the wider environment include the *New Zealand disability strategy* (Minister for Disability Issues 2001), *New Zealand health strategy* (Ministry of Health 2000), *Positive ageing strategy* (Ministry of Social Policy 2001) and the *New Zealand energy strategy to 2050* (MED 2007).

The *New Zealand energy efficiency and conservation strategy* (NZECS) (EECA 2007) recognises the role good urban design and an integrated transport system play in increasing accessibility¹³. This strategy contains a number of targets to reduce transport energy use and greenhouse gas emissions that directly relate to accessibility. They are grouped under the actions of managing demand for travel and more efficient transport modes (EECA 2007).

The Ministry of Education's school transport policy 'Team-up: Helping our kids learn' aims to 'ensure education is accessible for all students, regardless of their geographic location or special needs'. Assistance is provided in a variety of ways, including funding of school bus services, public transport allowances and taxi services.

Housing New Zealand Corporation's (Housing NZ) *Programme of action* sets out the government's programme of action for housing over the coming 10 years and includes a strategic goal of increased integration of housing with community and other services (Housing NZ 2006).

The following non-policy documents also contain actions associated with improving accessibility:

- The 2005 Human Rights Commission report, *The accessible journey: Report of the inquiry into accessible public land transport*, into physical accessibility for those with disabilities.

¹³ and improving energy efficiency through the increase in active modes and public transport use.

- *A guide to health impact assessment* developed by the Public Health Advisory Committee (2005).
- The *New Zealand Urban Design Protocol* aims to make 'New Zealand towns and cities more successful through quality urban design'. As 'urban design is concerned with the design of the buildings, places, spaces and networks that make up our towns and cities, and the ways people use them' (Ministry for the Environment 2005) the actions of the UDP signatories will have a direct effect on the accessibility of our towns and cities.
- Indicators of various aspects of accessibility by Statistics New Zealand and others. For example, the development of draft indicators of community outcomes by Statistics New Zealand and the Canterbury Region Community Plans Group.

A review of the existing documentation, policies and strategies identified a general lack of information regarding the implementation of accessibility planning across many government authorities. Broadly, central, regional and local strategies refer to accessibility planning as a strategic objective, but neglect to include indicators and outcomes as a means of measuring real progress in this area over time. Appendix A summarises selected central and local government¹⁴ strategies and initiatives in greater detail.

5.1.2 Central government transport sector roles and initiatives

Within the transport sector at the national level, two organisations have roles that can influence the translation of the NZTS accessibility objective into action:

Ministry of Transport: The Ministry of Transport (the Ministry) is responsible for transport policy development and has an increasing focus on accessibility in line with the NZTS. Its current emphasis is on the improvement of accessibility for the disabled to public transport (reflecting the Human Rights Commission's 2005 report) and those in rural areas, although it recognises the importance of accessibility as a wider issue. The Ministry has previously considered social exclusion as a driver of policy in this area.

The Ministry has also recently led development of a range of key transport indicators of access to the transport system, as part of the Transport Sector Strategic Directions 2006–2009 (TSSD) Transport Monitoring Indicators Framework (TMIF) project. These accessibility indicators are being populated with data and cover:

- the affordability of transport
- accessibility of community resources
- access to a motor vehicle
- travel perceptions
- accessibility of public transport (C. Lukkien pers.comm. 2007).

NZ Transport Agency (NZTA): On 1 August 2008, Land Transport NZ and Transit NZ were merged into one agency, the NZTA. The objective of the NZTA is to undertake its functions in a way that contributes to an affordable, integrated, safe, responsive, and sustainable land transport system. Its functions include the management of land transport funding and

¹⁴ In this report, the term 'local government' includes both regional councils and territorial authorities.

regulations, the provision and operation of the state highway system, and the delivery or management of its own activities including those of training and education. It is guided by the NZTS and is required by the Land Transport Management Act 2003 (LTMA), to take account of each regional land transport strategy and the needs of the 'transport disadvantaged' when preparing the National Land Transport Programme (NLTP), which allocates land transport funding. Reflecting these factors, the NZTA funding allocation process has a requirement for consideration of aspects of 'access and mobility' as part of its 'effectiveness' assessment. However, this represents only a small part of the assessment criteria and is unlikely to have significant impact on funding decisions. Similarly, its reporting guidelines on access are limited to the reporting of physical aspects such as wheelchair access.

One accessibility initiative successfully implemented by the former Land Transport NZ is the neighbourhood accessibility planning, which encourages territorial authorities to involve other agencies and community groups to identify and resolve safety and access needs. This project-based scheme utilises data collection and community consultation techniques to identify pedestrian, cyclist and shared-mode¹⁵ user safety and access problems (including perceived barriers). The resulting list of actions is specifically tailored to the neighbourhood's problems, which are prioritised and agreed to by the community. Actions can include new pedestrian and cycling facilities (ie engineering improvements), promotional initiatives, education and enforcement campaigns, environmental improvements, policy changes or any other remedial actions that improve or increase the use of active and shared forms of transport (Land Transport NZ 2007a). Councils can apply for funding assistance through the NLTP work categories of Community Coordination or Community Programmes (J. Morgan pers.comm. 2007).

5.1.3 Other central government roles and processes

Central government agencies responsible for 'social' portfolios typically have a strong relationship with local government agencies, as required through legislation or through information provision to enable local authorities¹⁶ to implement government policy at the regional/local level. The key coordinating agencies, whose relationship with local government can result in the identification of actions requiring improved accessibility, are:

Department of Internal Affairs: The Department of Internal Affairs (DIA) administers the Local Government Act 2002 (LGA) (refer appendix B) and the Local Government Rating Act 2002. The DIA Central/Local Government Interface Facilitation Team (IFT) facilitates contact between territorial authorities and central government agencies to raise awareness of (central government) agencies' role in the development of community outcomes, as identified by communities under the LGA. Communities often specify outcomes around the improved delivery of social services, including outcomes for better (transport) access to these services. The IFT also supports central government agencies, with shared interests in certain

¹⁵ Defined as including the use of mobility scooters, wheelchairs, car pools and public transport.

¹⁶ 'local authority means a regional council or territorial authority'; 'territorial authority means a city council or a district council'; 'unitary authority means a territorial authority that has the responsibilities, duties, and powers of a regional council...' (Local Government Act 2002).

community outcomes, to consider how to coordinate their activities (A. Pomeroy pers.comm. 2008).

Ministry of Social Development: The Ministry of Social Development (MSD) has a coordination role to promote effective relationships between territorial authorities and central government social agencies represented at the local level (MSD 2005). Within MSD, the Family and Community Services group (FACS) leads and coordinates government and non-government actions to support families and communities, including leading services planning and coordinating funding across government agencies and communities (FACS 2007a). Heartland Services, which FACS administers, is an interagency initiative that provides people in provincial and rural communities with access to government services (Heartland Services 2007). For example, each month social services staff based in Gisborne attend the Ruatoria Heartland Service Centre and Te Aroroa Health Centre to enable locals to discuss any issues face-to-face (Y. Kinsella and J. Livingston pers.comm. 2008).

FACS is currently facilitating each territorial authority through the local services mapping (LSM) process. Central and local government agencies, iwi and community-based agencies collaborate to identify local social priorities and highlight the areas for action (FACS 2007b). The social services considered in the LSM process for the primary target group of 'families with dependent children' include health and disability, education, social assistance, justice and housing. The secondary target group is 'families', which has employment assistance as an additional consideration in the LSM process (FACS 2005). Better transport and/or access to these support services are frequently cited as a priority for communities. This process is undertaken independently of, but can overlap with, the community outcomes process (see section 5.1.4) as they usually share the same stakeholders and are both outcomes focused. This means similar priorities often appear in the outputs of each process.

5.1.4 Local government roles, planning processes and initiatives

The 12 regional councils, four unitary authorities (with both regional and local responsibilities) and 74 territorial authorities share much of the responsibility for accessibility. In addition, the Auckland Regional Transport Authority (ARTA) performs most of the Auckland region implementation-related transport functions usually carried out by other regional councils (Booz Allen Hamilton 2007). These organisations have varying responsibilities under the LGA, the Resource Management Act 1991, the LTMA and other legislation, all of which contain aspects of accessibility planning, although accessibility is not explicitly specified as an objective in any of them. These include:

Community outcomes process: The LGA requires that local authorities prepare 10-year LTCCPs and review them three yearly. Within this process, councils are required to facilitate a process through which their communities identify community outcomes. Community outcomes can be any social, economic, environmental and cultural outcomes that communities want for their future wellbeing. Through this process, most authorities have defined accessibility-related outcomes and indicators of accessibility for monitoring purposes. Both the outcomes and indicators vary by authority, although many are similar and use similar sources for monitoring purposes.

Planning: The RMA requires that regional councils produce regional policy statements, which set the basic direction for environmental management in their region, and enables the development of regional plans, which concentrate on any aspect of any function for which the

council is responsible. The Act also requires that territorial authorities produce district plans, which guide the use and development of land. These do not currently include accessibility as an objective, but would ideally be influenced by an accessibility planning process.

At the project level, district and regional plans may require that individual projects obtain resource consent from the appropriate local and/or regional authority. This can include the requirement for an assessment of environmental effects, which comprises aspects of accessibility assessment. Health impact assessments are also undertaken within this context.

The RMA also requires that territorial authorities monitor relevant outcomes. In many cases, this is combined with the LGA community outcomes monitoring as an integrated monitoring strategy.

Transport: Regional councils influence much of the transport policy within their region, particularly that of public transport. Under the Land Transport Act 1998, they are required to prepare RLTSs with a three to 10 year planning horizon and must review them every three years. Some recognition of accessibility occurs through the setting of goals, measuring of access and monitoring progress against indicators, particularly in urban areas. However, each regional council develops its RLTS individually and the approach to any accessibility objective and range of indicators vary considerably between these organisations.

Territorial authorities exercise considerable influence on accessibility at the local level through the provision of local roads and aspects of walking, cycling and public transport, and through participation in the neighbourhood accessibility planning initiative. Given that they also guide land use through the district plan and consenting process they are better placed than most organisations to enable planning for accessibility, although there is limited evidence this is being done in practice. One example is Wellington City Council, which is currently undertaking an assessment of walkability and proximity to the public transport infrastructure. This assessment is being done in association with the council's review of residential infill development, with the aim of better managing sustainable growth in Wellington city through locating development alongside existing transport infrastructure.

Accessibility planning is important in ensuring the integration of future residential development to provide ease of access to essential services and activities. For example, the Auckland City Council liveable communities project is an initiative designed to deliver many of the objectives of its *Growth management strategy* (2003) by providing for planned and coordinated growth, following smart growth principles. Some current local government initiatives with a specific accessibility aspect include:

Avondale: A liveable communities project supporting opportunities for residents and visitors to participate in community life by implementing walking and cycling improvements and providing facilities for people with disabilities.

Hobsonville: Hobsonville Land Company Limited, a wholly owned subsidiary of Housing NZ, is facilitating a 10-year project to make Hobsonville accessible to people at all stages of life and ability and give residents enhanced access to essential services..

Panmure: A liveable communities project encouraging the integration of future development, including social infrastructure, with effective transport.

There are other accessibility-related initiatives undertaken at the regional and local levels, particularly relating to health. One example is the public health and wellbeing report for Auckland territorial authorities by the Auckland Regional Public Health Service (ARPHS) (ARPHS 2006). Examples of locally implemented central and local government strategies and policies are summarised in appendix A.

5.1.5 Funding regime

Source: Booz Allen Hamilton 2007a.

Transport: Funding arrangements for land transport in New Zealand are quite complex and are made more so by the different processes in place to deal with them.

The principal sources of revenue, from which land transport is funded, are:

- a range of fully and partially hypothecated (dedicated) charges on road users
- fully hypothecated charges associated with use of the rail network
- Crown allocations to road-based transport (including road-based public transport, cycling and demand management) and rail transport
- public transport user charges (fares)
- local government rates
- development contributions.

The NLTP is the principal means of distributing central government funding for transport in New Zealand. It is a 10-year programme of funding managed by the NZTA and is required to contribute to the five NZTS objectives, including that of access and mobility. Funds are available in three broad categories:

- national (N) funding – essentially for maintenance, operational activities and projects with national priority
- regionally distributed (R)¹⁷ – for regionally prioritised projects where ‘N’ funding is unlikely to be sufficient to allow the projects to proceed in the medium term
- Crown (C) funding – allocated by Cabinet for specific projects rather than maintenance or operational support. Territorial authorities usually have to contribute some funding to such projects.

Through the NLTP the NZTA allocates funding across 12 activity classes¹⁸, with the following of particular relevance to accessibility: improvement to local roads; renewal of local roads; passenger transport; and use of the land transport system. That said, none of these classes contain specific provisions for the funding of accessibility-related projects.

¹⁷ Funded from a five cents per litre increase in petrol tax and equivalent increase in road user charges on 1–5 tonne vehicles. Funds are broadly distributed between regions on the basis of population, though the Auckland region receives 35% of the available funding, a figure broadly in line with the region’s share of the national population. ‘R’ funding is intended to be incorporated in N funding from 2014/15.

¹⁸ In the 2007/08 NLTP.

Regional councils, territorial authorities and NZTA's state highway activities are the principal recipients of NLTP funding. There is scope to declare other bodies 'approved organisations', entitled to submit proposals for funding of projects under the NLTP. Processes established under the LTMA require organisations seeking funding to prepare a draft LTP on an annual basis. Each approved organisation's LTP must take into account how any activity or activity class meets the objectives of the NZTS, as well as taking into account any relevant RLTS. Projects may be grouped together as 'strategic packages'. The bidding organisation must also consider public comments on its draft programme, before submitting the proposal to the NZTA for assessment.

Land: Funding arrangements around land-use initiatives are confined to local authorities and are less complex than those for land transport. Revenue can come from the following sources: rates; development contributions or financial contributions; rent or user charges; and dividends (N. Bryan pers.comm 2008). Under Section 108 of the Resource Management Act 1991 territorial authorities may require a financial contribution, for purposes specified in the district plan provisions, as a condition of granting resource consent. For example, levies to upgrade network infrastructure may be imposed on a new subdivision. This provision is not used as much as that of development contributions under the LGA, which is an alternative to the former.

The LGA requires local authorities to provide predictability and certainty about funding levels and sources relating to the capital expenditure identified in their LTCCPs. This includes the adoption of a policy on development contributions¹⁹ or financial contributions (as per the RMA). These may be collected if a territorial authority is required to fund new or additional assets or an increase in capacity of existing assets as a result of a new development. This covers the provision of reserves, network infrastructure²⁰ and community infrastructure.

The Local Government Rating Act 2002 enables councils to set, assess and collect rates to fund local government activities. It contains a provision to set targeted rates to fund a function or group of functions, such as public transport. The funding can be from a specified group of ratepayers and can be set on all rating units or on particular categories.

Figure 5.1 summarises the principal legislation and associated planning and funding arrangements that currently apply within New Zealand. Appendix B provides a detailed description of the current legislation referred to in this section.

¹⁹ LGA section 201

²⁰ This includes roads and other transport.

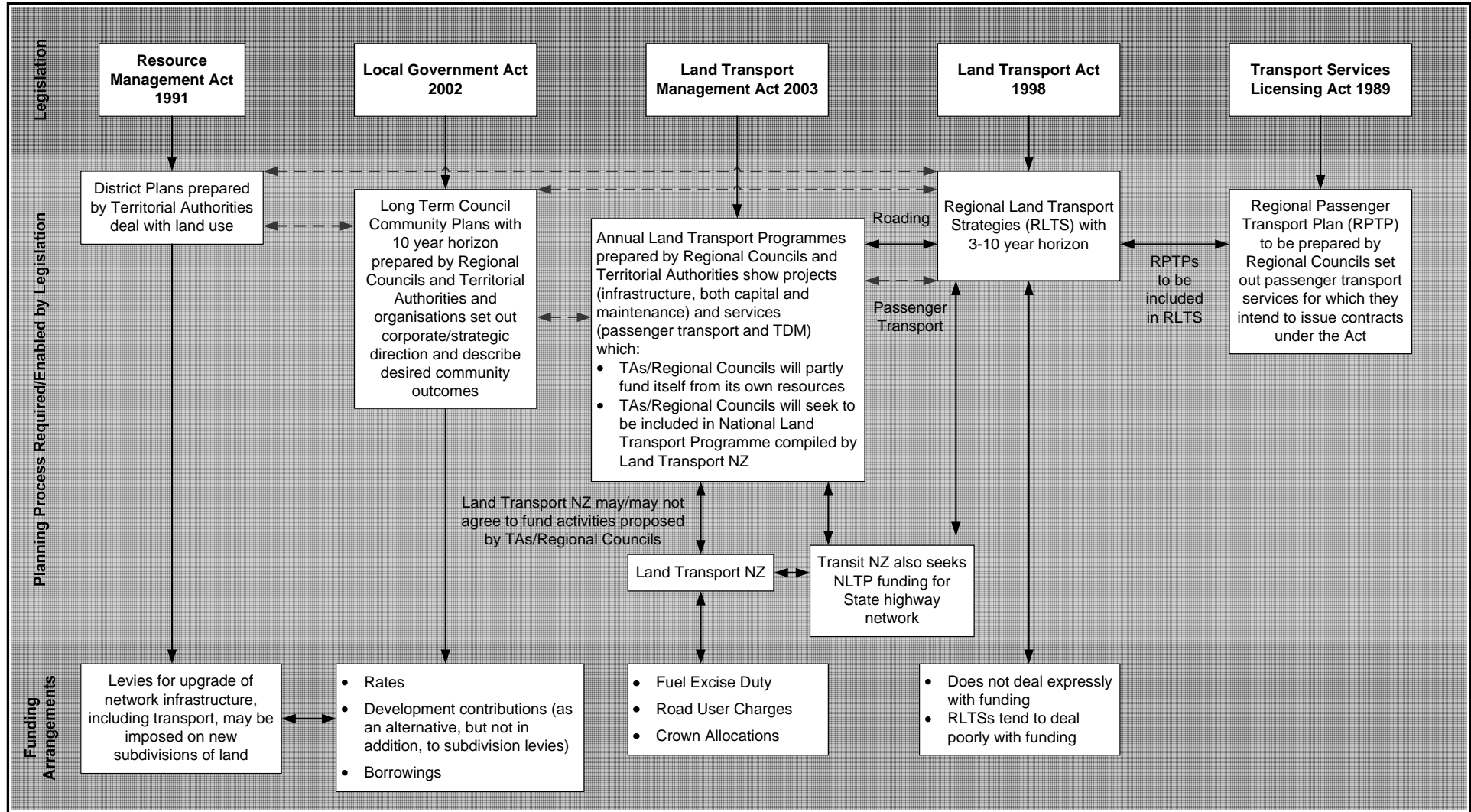


Figure 5.1 – Principal legislation and associated planning and funding arrangements bearing on transport planning and decision-making at the local government level in New Zealand. Source: Booz Allen Hamilton 2007a.

Notes ⁽¹⁾ Red dotted lines represent weak linkages

⁽²⁾ Plans required by different Acts tend to be prepared by different staff in the regional councils and territorial authorities

5.2 Recent changes to transport sector structure and legislation

Sources: Booz Allen Hamilton 2007a and 2007b (unless otherwise stated).

The government transport sector, most particularly land transport, has recently been reviewed and is undertaking a number of associated strategic initiatives designed to support a cohesive and efficient sector that has clear goals to deliver sustainable transport over the medium to long term. The changes to the land transport sector, which were enacted in August 2008, are described below in some detail, as they will have a significant impact on how accessibility planning could be applied in New Zealand.

5.2.1 Updating the New Zealand Transport Strategy

The Ministry of Transport is currently updating the NZTS. It issued a discussion paper, *Sustainable Transport: Update of the New Zealand Transport Strategy*. Discussion paper (UNZTS), in December 2007 that outlines a proposed direction for the transport sector until 2040, including medium- to long-term objectives and targets for the five NZTS objectives. These targets will complement existing transport targets under the government's sustainability agenda, the *New Zealand energy strategy* and the *New Zealand energy efficiency and conservation strategy*. The updated NZTS, when published in 2008, will contain an action plan detailing how the transport targets may be reached and providing clearer guidelines for decisions on funding allocations.

The UNZTS sets out a new and broader outcome relating to the objective of improving access and mobility, which maintains a focus on access to transport²¹ but also recognises the role non-transport solutions play in improving accessibility. The following targets support the delivery of the NZTS objective:

Suggested high level targets for 2040 are:

- all individuals have access to the facilities and activities they need, such as work, education, medical care and shopping centres, to participate in society
- travel times by all modes will be predictable
- travel times by principal routes will be improved relative to 2007 for identified critical intra- and inter-regional connections as determined with each region.

Suggested intermediate or detailed targets for 2040 are to:

- at least double the overall public transport mode share (in Auckland, Wellington and Christchurch) to 7% of all passenger trips (currently about 2-3%)
- increase the public transport mode share of peak-hour travel (journeys to work) in Auckland, Wellington and Christchurch from an average of 9% to 20% and work with each region to optimise peak-hour travel targets

²¹ This focus is relevant and not surprising given that the Ministry is the government's lead agency for transport policy.

- increase walking and cycling and other active modes to 30% of total trips in urban areas (currently about 17%) (Ministry of Transport 2007b).

There are also a number of suggested supporting targets relating to walking and cycling, passenger transport, funding procedures, urban design and the physical accessibility of public transport services and infrastructure. The access and mobility targets also contribute to delivery of the other four NZTS objectives.

5.2.2 Next steps review of the land transport sector

In August 2008, the LTMA 2003 was amended, with the purpose of enhancing the transport planning and funding system. The new legislation comprised recommendations from the *Next steps in the land transport sector review (Next steps)*, undertaken by the State Services Commission in 2007. The review proposed significant changes to the sector, including the merger of Land Transport NZ and Transit NZ to form a new transport Crown entity and the expansion of the Ministry of Transport's role. The LTMA, as amended:

- introduces a triennial *Government policy statement (GPS)*. This will set out government's high-level priorities and funding directions and levels for transport for the following three to six years, plus an extended view out to 10 years. The UNZTS and the trends, issues and options paper (below) will inform it. The first GPS is expected to be released in mid-2008 in order to guide the preparation of the LTCCPs and RLTSs due for review in 2009
- makes the NLTP three-yearly, extending the funding cycle and introducing three-yearly regional land transport programmes (RLTPs) that will identify and prioritise strategic land transport activities within a region. These will be prepared by regional councils, replacing aspects of the current annual LTPs prepared independently by regional councils, territorial authorities and the former Transit NZ
- changes the constitution of regional land transport committees (except the Auckland committee) and renames them regional transport committees (RTCs)
- extends the planning horizon for the national and regional land transport strategies to 30 years to reflect the long-term nature of transport planning. These strategies are to be reviewed every six years (currently three-yearly)
- introduces an accountability framework for the new transport Crown entity, the NZTA, which has been formed by combining the functions of Land Transport NZ and Transit NZ
- introduces full hypothecation (dedication) of fuel excise duties to the National Land Transport Fund
- enables regional fuel tax, to allow regions to bring forward capital projects (not part of *Next steps* but included in this legislation) (Ministry of Transport 2007c).

5.2.3 Trends, issues and options paper

This will be a non-statutory document providing input to the development and revision of the GPS. It will give an assessment of current and future transport trends and issues, such as population and land-use trends, as well as a range of options for addressing the key issues. This will enable the government's land transport funding priorities to be more responsive to strategic trends and issues faced by the sector. It will be updated on a three-yearly basis.

Figure 5.2 shows the newly legislated transport planning system and relationship between the various strategic and legislative documents.

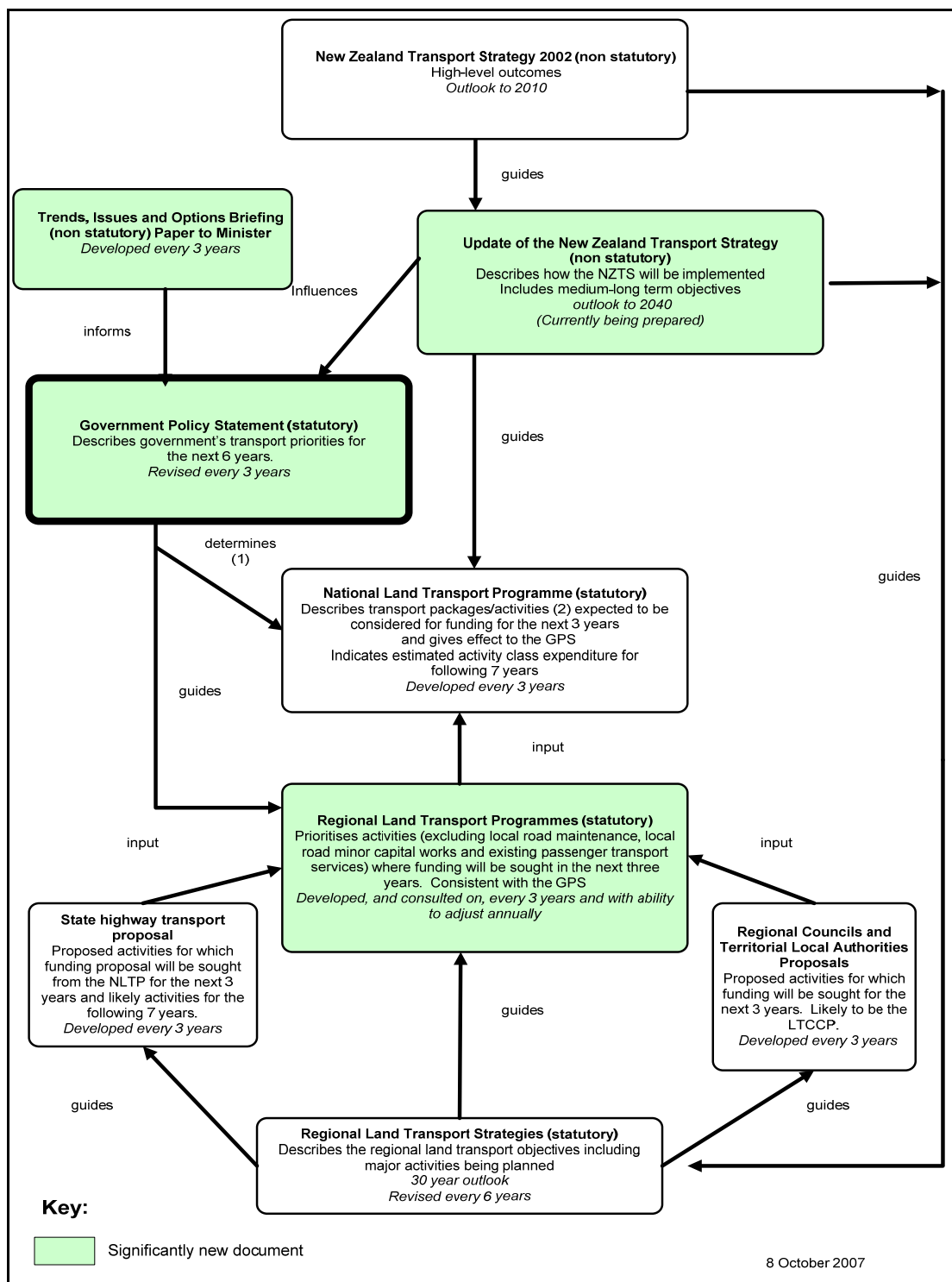


Figure 5.2 The LTMA transport planning system showing the relationship with strategic documents. Source: Ministry of Transport 2007c

- (1) Determines expenditure streams by broad transport type.
- (2) Packages/activities include maintenance, capital improvements and passenger transport services.

5.2.4 Public Transport Management Bill

The nature of public transport provision is a significant component of accessibility planning and therefore any changes to public transport legislation may affect the success of an accessibility plan. The Transport Services Licensing Act 1989 (TSLA) was developed when the priority was to reduce the cost of public transport to government and maximise the role of the private sector in public transport provision. Today, a priority for public transport is to provide a realistic alternative to private car use while ensuring the overall public transport network provides value for money. The Public Transport Management Bill, currently before a Select Committee, will repeal the TSLA and will:

- give regional councils greater influence over commercial bus and ferry services by enabling them to impose controls on commercial public transport services
- enable better integration of services and modes, including integrated ticketing and fares across a region
- clarify the purpose of and process for developing regional public transport plans
- require regional councils to use the decision-making process and special consultative procedure in the LGA when developing their plans, and to engage with the new Crown entity
- permit public transport services to continue to be delivered on a contracted or commercial basis
- provide regional councils with access to more information from commercial public transport services, such as detailed patronage information
- exclude taxi services from having to register with regional councils (Minister of Transport 2007).

5.3 Conclusion

Good accessibility is now recognised across government as critical to economic and social development, for all members of the population. Agencies outside the transport sector realise that accessibility is not just a 'transport problem', with the role of good urban design being more widely accepted as providing solutions to poor accessibility. Although there are currently a number of initiatives underway to address accessibility, both within and outside the transport sector, the current approach is still somewhat piecemeal. There are a number of reasons for this:

- The lack of linkages between transport and land-use legislation and governance inhibits an integrated and coordinated approach to accessibility planning, which spans both fields.
- Funding arrangements are complex, lack integration and tend to favour road projects. Currently the LGA provides the most easily implemented mechanism for the funding of accessibility projects.
- Transport policy statements and directives tend to group access and accessibility with mobility. This associates accessibility with, and focuses solutions on, the narrow aspect

of movement, rather than with the wider and more complicated interaction between movement and location/land use.

- Accessibility tends to be associated with physical access and seen as a problem suffered only by particular groups that are likely to have physical access problems, usually the disabled or the elderly. This precludes the comprehensive assessment of accessibility, particularly the social and economic aspirations expressed in the current government priorities and the NZTS.
- There is no nationally developed and agreed policy on accessibility.
- There is minimal national coordination, involvement or monitoring of the accessibility initiatives undertaken at the regional/local level.
- There is minimal coordination at a national level. Both transport and non-transport agencies (for example, those in the health, housing and education sectors) have strategic objectives that relate to accessibility, but these are not linked.
- There is limited coordination between the regions and territorial authorities at the local implementation level.

Table 5.1 summarises the status of accessibility planning in New Zealand against the seven key criteria previously identified in table 4.1. It shows that, in effect, New Zealand employs a minimalist and informal approach to accessibility planning and that there is a significant mismatch between the current level of planning for accessibility and that required for a fully developed comprehensive approach.

Table 5.1 Accessibility planning in New Zealand

Criteria	Comprehensive planning	Current New Zealand status
Organisational responsibility	Multiple levels of government	Unclear – aspects of accessibility planning at all levels of government
Influence at local level	Significant	Unclear – some influence on RLTS and LTCCP development (mainly monitoring)
Assessment frequency	Continuous	Variable – generally in conjunction with RLTS and LTCCP production
Spatial focus	All areas	Mainly urban
Modal focus	Wide	Unclear
Use of indicators	Extensive	Variable – partial
Influence on project evaluation	Significant	Minor

5.3.1 Potential impact of the changes to the land transport sector

A number of the issues listed above will be addressed to varying extents by the LTMA’s changes to the land transport sector as discussed in section 5.2. What is not addressed by these changes (as it is not part of the *Next steps* mandate) is the development of a nationally agreed policy on accessibility.

Overall, the creation of the UNZTS, GPS and the trends, issues and options paper provides for a formalised process of strategic thinking. This will inform longer-term planning at national

and local levels of government, which will be enabled by the extending of the national and regional land transport strategies' planning horizons out to 30 years.

The key factor in maximising the benefit to accessibility of these changes will be the strength of relationship between the UNZTS and the GPS (as legislated in the latter). The UNZTS is a non-statutory document described as 'influencing' the GPS. The aspirational access and mobility targets set down in the UNZTS must be carried through to the GPS priorities, which in turn must be detailed, and have funding specifically allocated in the short and medium terms if these targets are to be met by 2040.

The GPS should result in local authorities being better informed on the short- and medium-term transport priorities – as long as it provides sufficient detail to influence RLTS development, while the UNZTS targets will give all parties clear outcomes to work towards. The release of the first GPS in time to guide preparation of the LTCCPs and RLTSs is critical if these agencies are to incorporate the central government transport priorities and targets in their respective plans.

The transport sector recognises the role of other government agencies and the need for non-transport solutions if it is to meet the targets set down to deliver the NZTS objectives. However, neither the UNZTS nor the LTMA outline how the transport sector may influence the development of such solutions. This development and the coordination of their delivery remains a whole-of-government matter, although bold transport policy (such as the reprioritising of funding from roads to public transport and active modes) has the ability to influence land-use policies across a range of portfolios.

The remainder of the research detailed in this report assesses how to apply accessibility planning in New Zealand, given the challenges presented by the current planning and governance arrangements and the recently legislated changes to the land transport sector. It will deal with personal accessibility as it relates to the interaction between transport and location/land use and will consider the aspirations expressed in the NZTS and targets in the UNZTS discussion paper.

6. Applying accessibility planning in New Zealand

6.1 Selection of an appropriate accessibility planning framework

As seen in the earlier review of selected international experience in accessibility planning, there are a number of existing frameworks available for adaptation to the New Zealand situation. In selecting and implementing an existing framework, consideration must be given to the primary reason for introducing accessibility planning as this is a critical success factor together with how well the framework integrates with existing transport, planning and social services institutional structures and legislative frameworks. In the absence of a national accessibility policy to provide guidance the researchers propose a comprehensive accessibility planning framework for implementation across New Zealand as this has the potential to contribute to the delivery of both transport and non-transport outcomes from national down to community levels.

The proposed organisational framework and accessibility planning process are based on the existing planning legislation and social services institutional structures and the legislative and institutional changes to the government transport sector introduced through the amended LTMA (outlined in section 5.2). The suggested accessibility planning process is also cognisant of the accessibility outcomes and targets documented in the UNZTS discussion paper. A collaborative process including all sectors and levels of government, which works with the relevant community stakeholders, would ensure that accessibility problems are identified, considered and addressed in a consistent and holistic manner.

The accessibility planning framework and process implemented in England are adapted to suit the New Zealand situation. This is because, of the three examples reviewed, the English style of government and its sub-national transport planning framework are most similar to New Zealand's. Furthermore, England is the only country to have implemented a comprehensive accessibility planning process, so there is value in leveraging off its research and experience to date. The English indicators focus on access via public transport, which may be applied in many urban areas but cannot be used to measure accessibility uniformly across New Zealand. Therefore, the Southern Californian indicators, which focus on access via car and public transport, are combined with the English indicators to deliver an indicator set that is relevant New Zealand-wide. The Southern Californian region includes a variety of urban and rural/isolated areas and, during the second half of the 20th century, New Zealand and Southern California had similar patterns of urban land-use development and transport planning (predominantly car-centric dispersed land-use patterns). The Dutch accessibility planning framework has not been incorporated into the proposed process, primarily because it focuses only on urban areas.

6.2 National accessibility policy

The fundamental starting point for the development of an accessibility planning framework is a national accessibility policy. Such a policy does not currently exist within New Zealand; however, the UNZTS discussion paper section on improving access and mobility provides the

foundation for a policy on access from a mobility perspective. If the government were to strengthen its position on accessibility through the development of a national policy it could do so by considering the following aspects of accessibility for addition to the UNZTS:

- Strengthen the existing high-level outcome through the recognition of non-transport accessibility related solutions.
- Document what the objectives of the accessibility policy will be in support of the high-level outcome.
- Identify and define the population groups that the policy will focus on (eg transport disadvantaged, socially excluded, geographic areas, all New Zealanders).
- Comment on the current national accessibility situation and why it requires improvement.
- Specify the time frame for the accessibility policy actions. Inclusion of an accessibility policy in the UNZTS would require the adoption of actions to be delivered by 2040.
- Recognise the need to work with non-transport agencies to identify access problems, as they relate to the target groups, and the need for a whole-of-government (high-level) position on how these problems should be addressed (eg the development and implementation of an accessibility planning framework).
- Where relevant, recognise and/or incorporate existing accessibility-related studies, data and targets (eg the HRC accessible journey report, LSM data, community outcome targets).
- Document national outcome targets and action targets, which include clear deliverables and dates, to support the high-level accessibility outcome and ensure the target groups' needs are incorporated in the targets.

Unless a national accessibility policy is adopted in the future, the recommendations in this report for specific accessibility assessment indicators and targets may be invalid or inappropriate. In the absence of a national policy, the following recommended accessibility planning process and indicators are based on the New Zealand government's high-level access statements contained in the NZTS and the TSSD document, specifically the latter's directional statement of:

The transport system is increasingly providing affordable and reliable community access.

6.3 Accessibility planning process

6.3.1 Suggested process for the development of accessibility planning

The UNZTS outcome remains mobility focused, but can be interpreted as seeking to deliver better access to activities than currently experienced by all New Zealand residents regardless of geographical location, age, capability or financial situation. This accessibility planning process provides the means for national and local agencies to determine the current adequacy of access for individuals to school and further education, the doctor and hospital, employment, community/social services and food shopping (in the first instance) and enables them to identify the local accessibility problems to be addressed. It also outlines the recommended contents of regional accessibility plans to address the problems they identify,

and provides a suggested monitoring framework as a means of evaluating the actions contained in these accessibility plans. The process is set out using the five stages comprising the English accessibility planning process, as depicted in figure 4.1 and table 4.2: Strategic accessibility assessment; regional (local in the English framework) accessibility assessments; option appraisal; accessibility plan preparation; and performance monitoring and evaluation.

6.3.1.1 Strategic accessibility assessment

The aim of the strategic accessibility assessment is to identify strategic priorities and define the requirements for future, detailed assessments including regional assessments. Development of core (national) indicators is also completed to provide guidance for later stages of the accessibility planning process. The success of this stage of the process hinges on the ability to gather appropriate, accurate information and data in a timely manner. This requires input from a range of stakeholders and, therefore, necessitates the development of ongoing, productive relationships between them, usually achieved through the formation of accessibility partnerships. In order to improve accessibility the priorities must be presented in ways that invite innovative transport and non-transport solutions. It is recommended that this stage incorporate both national and regional strategic assessments, particularly as there is currently no national accessibility policy.

National strategic assessment. The Ministry of Transport would utilise existing interagency forums to lead and coordinate the identification of national strategic priorities for accessibility, consulting a range of central and local government agencies. The DIA-chaired Central Government Interagency Group would provide the primary means of gathering whole-of-government commitment and input into the development of the national strategic accessibility priorities. Local Government New Zealand (LGNZ) zone meetings and RTCs would provide a useful means of liaising with local authorities, particularly regional councils, to gather their accessibility perspectives and strategic priorities.

Undertaking an audit of current government priorities, strategies, programmes of action, surveys, reports and datasets would enable the collation of existing accessibility-related issues and supporting data sources across a range of portfolios. Engaging with regional councils and drawing on information contained in regional and local documents, especially LTCCPs, would enable central government to identify national (local-level) accessibility outcomes.

Through the DIA-chaired Central Government Interagency Group, the Ministry of Transport would continue to engage with the same key stakeholders to translate the various accessibility issues identified in the audit into national strategic accessibility priorities (and most likely a national accessibility policy). The audit information, agreed priorities and relevant data would then inform the development of core indicators (see section 6.5). Table 6.1 lists the type of information sources that should be considered during the audit.

Other agencies with relevant information that would also help build a picture of national accessibility issues include the Tertiary Education Commission, Ministry of Education, New Zealand Health Information Service, District Health Boards, Chambers of Commerce and academic researchers (for example, University of Canterbury and the Centre for Social and Health Outcomes Research and Evaluation at Massey University have produced a health-related accessibility index for the whole of New Zealand).

Table 6.1 Information relevant to strategic accessibility assessment.

Name	Type of information	Relevance	Responsible agency
National census	Socio-demographic data	Includes geographic, demographic and social groupings, income, education levels, dwelling types, access to technology	Statistics New Zealand
National <i>Household travel survey</i>	Continuous survey providing up-to-date travel data and travel trends over time	Includes access to transport, mode type and share, destinations, demographics.	Ministry of Transport
Property and land records	New Zealand property and land parcel information Land zoning data Roads and railways	Land use patterns in relation to transport infrastructure	Land Information New Zealand Territorial authorities
Social report	Annual report of indicators of social health and wellbeing of New Zealand society	Statistics and trends include people, health, knowledge and skills, paid work, economic standard of living, social connectedness, safety, leisure and recreation, physical environment	Ministry of Social Development
Transport monitoring indicators framework	Major transport data repository for indicators tracking progress towards delivery of the NZTS vision	Transport data covering nine key indicator outcomes: network reliability; lifecycle management of vehicles and infrastructure; access to the transport system; travel behaviour; safety; transport system resource use; emissions; public health effects; contribution to economic transformation	Ministry of Transport
Central government strategies, eg NZEECS, <i>NZ health strategy</i> , <i>NZ disability strategy</i> , <i>NZTS</i> , <i>Positive ageing strategy</i> , <i>Getting there – on foot, by cycle</i>	Desired portfolio objectives and outcomes to be delivered (through associated implementation plans)	May contain trends and targets sought	Various central government agencies
Central government policies, studies, and programmes of action, eg Housing New Zealand Corporation Programme of Action, Team-up – Helping our kids learn, UDP, Strategic Transport Futures	Actions to deliver strategy outcomes and policy	May include access or accessibility –related objectives or outcomes	Various central government agencies

Name	Type of information	Relevance	Responsible agency
Regional land transport, passenger transport, cycling, and walking strategies	Objectives and outcomes to guide delivery of a sustainable regional land transport system	Outline the regions' goals and objectives for their transport network and services over the next 30 years	Regional councils
Regional (growth) strategies	Regions' initiatives to progress economic growth and quality of life	Can include planning of land uses, transport, housing, urban design, open spaces	Local authorities
Long-term council community plans	10-year plans outlining communities' social, cultural, environmental and economic outcomes sought and councils' plans to address them	Community outcomes, many of which are transport and/or access-related, and outcome indicators for monitoring success	Local authorities (Department of Internal Affairs)

The completed national strategic assessment and core indicator set would be signed off by the contributing central government agencies and would include an agreed review process and time frame. An appropriate time frame for review would most likely be three yearly, in line with the GPS review process and to inform the LTCCP process. Strategic accessibility priorities and core indicators covering the transport, health, education, employment and social sectors should be incorporated in each of these portfolios' strategic documents to ensure they are delivered in a collaborative and consistent manner. The strategic accessibility priorities and core indicators would also guide the NZTA and regional councils as they lead the regional accessibility planning process, including the development of regional priorities and indicators and the setting of accessibility targets. Engaging regional councils in the national strategic assessment process would ensure they have audit information of direct relevance to the regional strategic assessment.

Regional strategic assessment. The NZTA would provide regional councils with national-level support and guidance throughout the accessibility planning process. In this stage it would ensure the regional councils are leading the development of regional strategic accessibility priorities based on the national ones and relevant to their respective regions. As a regional strategic assessment is the precursor to undertaking a detailed regional accessibility assessment it makes sense to undertake the two processes concurrently, with regional councils assuming the lead role as regional coordinators, much the same as the Ministry of Transport leads the national strategic assessment. The other key stakeholders involved in this stage would be territorial authorities and locally-based staff of central government agencies.

The amended LTMA legislates that RLTSs will have a 30-year outlook and be updated six yearly. In order to provide some level of certainty to residents and central government around this longer planning horizon, regional councils would most likely undertake scenario planning to support the transport strategies and policies documented in their RLTSs. These scenario planning exercises should include an accessibility component, and take account of the core indicators, in order to provide a picture of potential future accessibility conditions to assist the development of regional strategic accessibility priorities. Using the transport

scenario planning results in conjunction with GIS mapping of proposed future land-use patterns (as documented in regional growth strategies) would ensure regional councils and their partners have a greater understanding of longer term travel and accessibility needs. Requiring regional councils to model accessibility would also ensure that it is considered on an ongoing basis in the development of their RLTSs and RLTPs.

Regional policy statements, RLTSs and their associated strategies and implementation documents, regional growth strategies, LTCCPs, land transport programmes, district plans and community and large employers' travel plans should be referenced to identify strategic accessibility priorities. Relationships with locally based central government agencies should be utilised to ensure the national strategic priorities are interpreted and applied to meet the local situation.

6.3.1.2 Regional accessibility assessments

Regional councils would lead regional accessibility assessments with guidance and support from the NZTA. Regional accessibility assessment involves gathering detailed information to quantify the accessibility problems (including their scale) as they relate to the national and regional strategic accessibility priorities. Information would come from a combination of evidence sources covering local socio-demographic (including deprivation) data, future trends and growth strategies, stock takes of service providers and services, GIS mapping of transport routes, origins and destinations and talking with key stakeholders. Existing information and data would need to be supplemented with additional detailed mapping audits and analysis against the core indicators to provide a clear picture of the 'where' (origins and destinations), the 'how' (transport and information networks) and the 'who' (service providers and residents/users).

An ideal way of completing the regional accessibility assessment would be through the merger of the information gathering/assessment stages of the existing LTCCP, RLTS, LSM and neighbourhood accessibility planning processes. This would simplify the regional assessment process, bringing together the transport, social and community information and data required to identify accessibility problems and develop regional indicators. It would also minimise the 'consultation fatigue' that some local authorities and community stakeholders may already feel. Currently each of these processes is undertaken locally and run by each council as they see fit, with the following central government input:

- The DIA Central/Local Government IFT provides information and support to local authorities and central government agencies involved in the community outcomes process.
- The LSM is a locally run process, facilitated by MSD's Family and Community Services (FACS) group, to improve the delivery of local social services. FACS (2005) has produced detailed process guidelines, *Local services mapping. A community-based approach to the improved delivery of social services*, which takes territorial authorities through the three-phase process of developing a community report, developing the associated community action plan to address the problems identified in the former, and implementing and monitoring the action plan
- Locally based NZTA staff provide guidance and support to territorial authorities implementing NAPs, which focus on projects that improve safe access (by non-car modes)

at the neighbourhood level. Guidance includes information on the funding and evaluation criteria and process for such projects.

A merger of the assessment stages of these processes is unlikely to occur because such multi-agency consultation may be deemed time consuming and cumbersome. Furthermore, up-to-date information will not be available simultaneously as the timeline for review of RLTSs will be six yearly under the amended LTMA, while LTCCPs are reviewed three yearly and the LSM and NAP processes are undertaken on an ad hoc basis. Therefore, it is recommended that the regional councils liaise with the responsible organisations to obtain the information required to identify accessibility problems and develop regional indicators.

This stage also requires the regional council to establish a regional accessibility partnership to be involved in the accessibility planning process. This partnership would comprise representatives from local authorities, local representatives of central government agencies, iwi, non-government and other community providers, transport providers, local businesses and/or their representative organisations like chambers of commerce, local user groups and residents. It is critical that stakeholders comprising a regional accessibility partnership represent local government, the transport sector and all sectors covered by the core indicators, particularly as regional councils are not mandated to operate in the majority of areas that accessibility planning addresses.

A number of existing networks are an invaluable resource to regional councils, providing considerable local knowledge across a range of areas and strong networks of their own with which they consult. The IFT team and FACS are part of established networks within each region and there are also existing local multi-agency partnerships working together to achieve common goals. For example, Gisborne/East Coast Council of Social Services is a collective of around 120 different local organisations (including the district council, Work and Income and IRD) that provide community services and support in areas including health, education, housing, etc (Y. Kinsella and J. Livingston pers.comm. 2008).

The range of information gathered in the regional accessibility assessment, together with an analysis against the core indicators should enable regional councils and their partners to identify specific accessibility problems associated with the regional strategic priorities. This may include already recognised problems in various portfolios and for particular population groups, eg Capital and Coast District Health Board (C&C DHB) has identified there is no public transport available for Wellington Hospital staff living in Wellington's northern suburbs and starting work at 7 am on weekdays (J. Simmons pers.comm. 2008).

Fundamental to the problem identification process is recognising and accepting that each stakeholder 'portfolio' would most likely see the same problem from a different perspective. The more portfolios acknowledging the same problem the more likely the problem should be included in the accessibility plan for addressing. Using the above C&C DHB example: the hospital sees an employment/staffing problem as people may not apply for jobs there; the regional council and bus companies see a transport problem as they may not have the resources to provide the desired service; the Ministry of Health sees a medical problem as hospital services may not be functioning as they should; and residents see a personal problem as they can't get to work or can't get to check in to hospital on time for a scheduled procedure. Assessing socio-demographic data and GIS mapping information will help determine the scale of such a problem and enable the partnership to agree an appropriate action.

Once the specific accessibility problems are agreed and related to the strategic priorities the regional accessibility partnership can begin the next stage of the planning process.

6.3.1.3 Option appraisal

In this stage of the process, the regional councils would lead their respective accessibility partnerships in the identification of a set of appropriate actions (options) to address identified accessibility problems as they relate to the regional strategic accessibility priorities. While there is already considerable effort at all levels of government across the transport and social sectors to identify and address priorities and problems that (sometimes coincidentally) have an accessibility component to them, this work is undertaken severally. Successful accessibility planning should bring these efforts together to capitalise on them, resulting in efficiencies at the implementation stage. Therefore, in order to maximise the benefits of these individual efforts it is important that the option appraisal process is undertaken collectively.

As with the regional assessment stage, the option appraisal should also be aligned with the existing statutory and non-statutory transport and land-use processes (GPS, RLTS, NLTP/RLTP, LTCCP, district plans, LSM, NAP) to ensure that accessibility-related actions identified in each of these processes are captured and are consistent across the various planning documents. This is critical from a funding perspective, as regional accessibility plans will have a direct relationship with NAPs, RLTSs/RLTPs and LTCCPs. The NLTP part funds actions prioritised in these documents, with funding also provided through statutory regional/local government mechanisms. The various planning and funding processes of non-transport partners should also be considered, for example LSM and district plans. It would be beneficial to all parties if members of a regional accessibility partnership could jointly fund actions that address 'multi-portfolio' problems, as a shared commitment and funding has the potential to accelerate the implementation of an agreed solution. Adding accessibility provisions to district plans or associated design guides would ensure the consideration and funding of accessibility issues at a project level, thereby providing long-term benefits to both accessibility partnerships and the communities they serve.

Transport and non-transport options should be appraised and separated out into short, medium- and long-term timelines dependent upon the ease of implementation and availability of resources (including funding). When appraising and selecting options for implementation, the following factors should be considered for each of the options:

- the benefits and disbenefits (impacts). This includes deterrence factors like perceived safety and travel cost and time, the wider impacts an option may have across a number of portfolios and/or the entire community, value for money, efficiencies gained through joint working
- the barriers to implementation, including regulatory and statutory barriers at all levels of government
- the availability of resources to support and implement the option. This includes funding, existing and potential budgets, potential income from users of the implemented option (if a service), required staff and their skills and capacity, the time required, information technology and management tools, voluntary and community resources
- the stakeholders necessary to progress the proposed option.

By compiling this information for each option under appraisal, accessibility partnerships should be able to fairly identify the options that: provide the greatest benefits to meet the regional accessibility priorities and the outcomes sought by each of the partnership organisations; can most easily be progressed to implementation; and offer the best value for money (DfT 2006a). The following example (table 6.2), on improving access to health facilities in Wairoa district, demonstrates the type of outputs from each level of the accessibility planning process²².

Table 6.2 Example of accessibility planning process outputs using Access to Health Facilities in Wairoa District

Process stage	Output example
National strategic assessment: national priorities	The transport system is increasingly providing affordable and reliable community access (MoT 2007d) Everybody has the opportunity to enjoy a long and healthy life (MSD 2007)
National strategic assessment: core indicators	% of households within 30 minutes and within 60 minutes of a hospital % of households that can reach a hospital by public transport
Regional strategic assessment: relevant information Sources: HBRC 2007, WDC 2005, WDC 2006	Current population, of 8500, is in decline 50% of residents live in Wairoa and surrounds, 25% in coastal and inland villages, 25% are rural 26% of the population is currently under 15 years old and 12% is over 65 By 2026 around 25% of the population will be over 65 years old The majority of the district has a deprivation index of 6 or more Unemployment is higher and the median income lower than national levels 63 km of urban roads and 772 km of rural roads PT services are limited to the intercity bus between Gisborne and Napier
Regional strategic assessment: regional priorities Sources: HBRC 2007 and WDC 2006	A lifetime of good health and well being A safe and integrated transport system An integrated, safe and affordable land transport system that contributes to the current and future economic, social, environmental and cultural well being of Hawke's Bay Route security is maintained so that communities are not unnecessarily isolated from accessing essential services due to road failures, especially Matahoura and Putorino gorges
Regional accessibility assessment: specific problem definition	10% of households in Wairoa don't have access to a motor vehicle There is no taxi service or total mobility scheme There are no local PT services Wairoa hospital is non-surgical. The nearest public surgical hospital is in Hastings The Hospital Board bus runs weekly from Wairoa hospital to Hawke's

²² While some of the information in this example is sourced from the UNZTS, *The social report 2007* (MSD 2007), Hawke's Bay Regional Council's draft RLTS (HBRC 2007) and Wairoa District Council's LTCCP 2006–2016 (WDC 2006) and *Draft district overview* (WDC 2005), the 'problem', associated options and appraisal are fabricated and may not reflect reality.

Process stage	Output example
	Bay hospital in Hastings
Regional accessibility assessment: regional indicators	Residents' levels of satisfaction with the transport infrastructure (WDC 2006) Residents' level of satisfaction with health services and professionals in the community (WDC 2006) Number and type of hospital admissions (WDC 2006) % of the population able to reach Wairoa and Hawke's Bay hospitals by PT % of the population able to reach local medical services by PT
Option appraisal: potential options. (example option in bold) Short-, medium- and long-term implementation time	Increase resources for public health nurses / take health services into people's homes (short-term) Residents with an early morning Wairoa hospital check-in share Wairoa College buses (short-term) Expand the Hospital Board bus service to shuttle patients to Wairoa hospital the night before the trip to Hawke's Bay hospital (medium-term) Use Ministry of Education school buses and routes, between 9.30 am–2.30 pm and 5–7 pm weekdays, to take village and rural residents into Wairoa to access health care services (medium-term) Introduce a demand responsive transport PT service in the district (long term)
Option appraisal: target	x% annual decrease in the number of medical appointments cancelled due to an inability to get to a medical facility (including hospitals)
Option appraisal: impacts	Provides non-urban population with a regular PT service to access medical, social, health, cultural and employment services in town Provides increased employment opportunities (bus drivers) and widens the pool of potential employees for current employers Increased use of existing resources (buses and drivers) Spreads operating costs across MoE, NZTA, MoH/HBDHB, WDC Increased maintenance required on buses Running late against the schedule would impact on the school children May not be enough medical staff to meet increased demand
Option appraisal: barriers	The NZTA regulatory requirements for bus drivers/casual drivers MoE regulations around use of school buses and restrictions on drivers Lack of a cross-portfolio funding mechanism Knowledge and capacity of agencies' and community organisations' staff to implement programme Number of available drivers, training of drivers Would need a roster as two drivers required if also running a 5–7pm weekday service Physical accessibility of buses Medical appointment times may not coincide with bus service Personal safety around waiting at rural bus stops Residents may not be able to afford the service, even a subsidised one
Option appraisal: resources	Availability and capability of stakeholders' staff to implement option

Process stage	Output example
	<p>No GIS software or skilled staff in WDC at present</p> <p>Currently available data are not all base cased to the same year</p> <p>HBRC transport priorities and expenditure for the next three-year period are not allocated to PT solutions in Wairoa district</p> <p>Ability to access Crown funding for accessibility projects is limited</p> <p>May need more buses and drivers</p> <p>Existing community drivers (eg Red Cross) may be able to provide an interim DRT-type service</p> <p>Revenue collected from users of the new service will probably be limited</p>
Option appraisal: stakeholders	<p>Ministry of Education – central and local</p> <p>Ministry of Health – central and local</p> <p>Ministry of Social Development – local</p> <p>NZTA – central and local</p> <p>Hawke’s Bay District Health Board</p> <p>Te Puni Kokiri – local</p> <p>Wairoa District Council</p> <p>Hawke’s Bay Regional Council</p> <p>Primary health organisations, medical centres, public health nurses, other health practitioners</p> <p>Bus drivers</p> <p>Mechanics</p> <p>Ngati Kahungunu Iwi</p> <p>Community services groups</p>

6.3.1.4 Regional accessibility strategy and plan preparation

The above example shows the type and amount of information in existing regional and local statutory documents that are directly relevant to the accessibility planning process. It also demonstrates how the proposed process provides a framework and content for the resulting regional accessibility strategy and plan.

An accessibility strategy should:

- state the region’s high-level accessibility vision and objectives
- demonstrate the link to national strategic accessibility priorities and core indicators
- provide the strategic context for the accessibility plan, including outlining the evidence base that supports the strategy
- state the region’s strategic accessibility priorities, high-level outcomes and targets
- define the relative importance of accessibility in comparison with other regional objectives
- specify how accessibility improvements will complement the other regional objectives

- describe how the consideration of accessibility problems will inform other regional and local plans and strategies, eg LTCCPs, growth strategies, district plans, transport plans, those of social services agencies
- explain the involvement of accessibility partnership members in the development and implementation processes
- outline the implementation plan and timeline for the strategy
- indicate the type and level of funding for the accessibility priorities being addressed over the strategy's duration
- define the monitoring, evaluation, feedback and review programme.

Given the similarity of content in an accessibility strategy and a RLTS, combining the two documents is prudent, as this would minimise the amount of rework for regional councils and their partners. It would also bring accessibility planning into line with the RLTS timeline, requiring the accessibility strategy to have a 30-year planning horizon with six-yearly updates. Furthermore, it would ensure the regional accessibility strategy captures relevant community outcomes and council actions arising from the three-yearly updates to LTCCPs.

The associated regional accessibility plan flows out of the regional accessibility assessment and option appraisal steps of the process. Thus, the plan would comprise the outputs of these steps as well as regional indicators and targets. This information would enable partners to refine the information gathered during the option appraisal stage and agree on a detailed set of actions to address each of the problems identified during the accessibility assessment. The actions should be prioritised and supported by an explanation of why they have that priority. A phased implementation schedule for each action together with its proposed funding sources, the resources required and the agencies leading the implementation would also be documented. The regional accessibility plan would be a stand-alone document that would accompany and support the accessibility strategy, in the same manner as existing regional transport plans (eg, regional passenger transport plans, corridor plans, TDM strategy, walking and cycling plans) and proposed programmes do with a RLTS.

Regional accessibility plans should be developed three yearly with the ability to be updated annually. The primary reason for this is to align them with the LTCCP and RLTP timelines. This would enable regional accessibility plans to account for any relevant community outcomes. The resulting prioritised transport actions within an accessibility plan would then feed directly into the RLTP prioritisation and funding process. Section 6.2.5 details some factors for consideration when incorporating accessibility planning into the current national evaluation and funding process. A method for implementing regional non-transport actions would need to be agreed between the partners.

Figure 6.1 illustrates the proposed relationships between regional accessibility strategies and plans and the existing planning documents that inform them or that they feed into. It summarises the recommendations made to capitalise on existing processes and documents in order to avoid duplication of effort and provide efficiencies to the stakeholders comprising the national and regional accessibility planning partnerships.

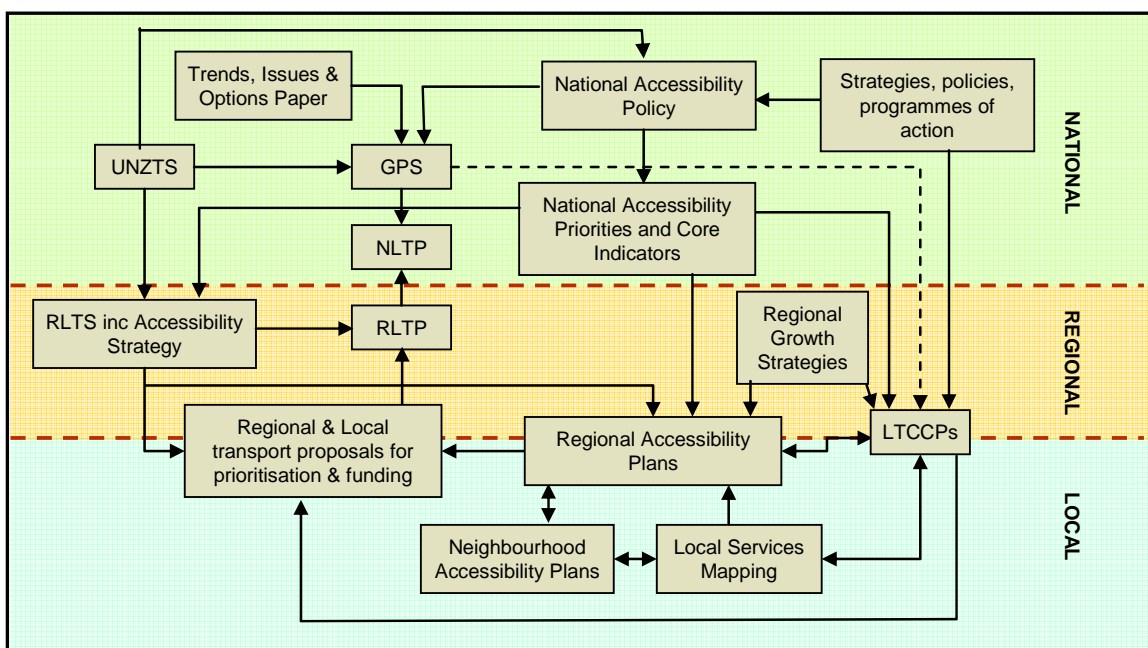


Figure 6.1 Proposed relationships between accessibility plans and existing planning documents and processes.

6.3.1.5 Performance monitoring, evaluation and feedback

The purpose of this stage of the accessibility planning process is to develop core (national) and regional indicators and targets, and monitoring frameworks to track progress towards delivering accessibility outcomes. This section outlines the suggested process for the monitoring, evaluation and feedback of results, while section 6.3 details how to measure accessibility through the development of relevant indicators.

The proposed accessibility planning process draws on existing planning documents, processes and stakeholder relationships wherever possible in order to simplify its process, ensure a consistent approach by partnership agencies and minimise stakeholder 'fatigue'. The performance monitoring stage does the same, using and adapting existing monitoring and reporting frameworks to measure the success of accessibility plans. The information flow is bottom-up, in that performance monitoring at the local and regional levels feeds up into national monitoring programmes.

Local authorities are already adept at monitoring against predefined outcomes. They develop indicators to monitor the delivery of the (accessibility-related) community outcomes documented in their LTCCPs. Regional councils also produce annual monitoring reports (AMRs) that report on the progress made delivering RLTS outcomes to meet the specified targets and regularly report to their RTCs on progress made delivering the RLTS implementation plans. Regional councils gather the transport data from a wide range of sources including the territorial authorities in their region (L. Waayer pers.comm. 2008).

Incorporating accessibility monitoring and feedback in these existing reporting documents and processes would be relatively straightforward through the addition of the newly created regional indicators and targets that measure progress towards meeting the region's agreed accessibility outcomes. This would require regional councils to collate, monitor and report on

indicators and targets traditionally viewed as external to transport, for example access to health, education and food shops. Therefore, they would have to develop indicators to monitor the accessibility of these destinations (including employment), requiring a change in thinking at all levels of government. The existing relationships that regional councils have with their local government colleagues should make it easy to include non-transport accessibility data with the currently collected monitoring information. Much of this information may already be available if LTCCPs contain indicators measuring accessibility outcomes. The development of regional indicators would be led by regional councils and would be included for updating within the existing RLTS, LTCCP and AMR processes.

At the national level the NZTA, as the agency responsible for coordinating the national implementation of accessibility planning, would collate the regional information to verify that the regional accessibility plans are delivering on the outcomes and targets stated in their regional accessibility strategy (ie act as the national accessibility planning 'auditor'). It would also ensure that the regional outcomes and targets are in line with, and therefore contributing to, the core indicators. This monitoring would be undertaken annually, using information contained in the AMRs. The NZTA would also use the collated regional monitoring data to identify any changes required to the composition of the NLTP evaluation and funding criteria, thereby directing the prioritisation of regional accessibility actions to deliver national accessibility outcomes.

The Ministry of Transport would collate the AMR data to populate any core indicators contained in the TMIF. This would enable it to track the delivery of the national accessibility priorities and policy outcome targets and inform the three-yearly updating of the GPS. It would also use this information in the monitoring of how the national transport system is functioning. The Ministry's analysis of this information would enable it to make transport policy decisions with a sound empirical base and contribute to other portfolios' policy discussions from an informed position. The review and updating of core indicators would occur three yearly, in line with the updating of the GPS and to enable the identification of any trends in accessibility.

6.3.2 National guidelines for accessibility planning

As the national coordinating agency for accessibility planning, the Ministry of Transport, in association with the NZTA, would be responsible for the development and dissemination of national accessibility planning guidelines. These guidelines would assist local authorities, particularly regional councils in the development and implementation of accessibility planning in their regions. The FACS (2005) LSM process guidelines and the NZTA's neighbourhood accessibility plans (NAPs) are logical tools on which accessibility planning process and guidelines could be based. Both are for territorial authorities and include guidance on investigation/information collection, development of action plans and implementation of action/project plans. Adapting these existing documents would save the Ministry of Transport time and provide local authorities with a consistent and familiar implementation approach. It would also readily combine assessment methodologies that already result in the identification of accessibility-related issues from across a range of portfolios (that comprise the proposed core indicator set).

The New Zealand Society of Local Government Managers (SOLGM), in association with LGNZ and the National Asset Management Steering Group, has produced a suite of guides to assist

local authorities as they prepare the 2009–2019 LTCCPs. These would also be valuable reference documents when developing accessibility planning guidelines.

The Ministry of Transport and the NZTA should approach the DIA IFT team, the MSD FACS group and SOLGM to agree on the best means of working with them, adopting and adapting their respective processes and guidelines to suit accessibility planning. For example, in the case of the LSM process this would include broadening the target groups from families to the entire community, broadening the assessment process from social services to include all sectors covered by the core indicators (transport, employment, supermarkets/food stores, community/social, education and health services), and incorporating GIS mapping analysis and transport services modelling.

The Ministry of Transport would also work with these agencies to agree on a method of implementing non-transport accessibility priorities and action plans and ensuring they are given due consideration in any (portfolio) prioritisation and funding processes. This information would need to be clearly documented and consistent across the accessibility planning guidelines and each partner organisation's guidelines or manuals so that regional accessibility planning partnerships are clear on the method for implementing their various accessibility actions.

6.3.3 Evaluation and funding of accessibility actions

How actions are evaluated and funded is a key component of the success of the accessibility planning process. If the UNZTS and GPS both contain outcomes and priorities to improve accessibility, the NLTP project evaluation and funding procedures will need to be amended to ensure that accessibility actions in RLTPs can be accurately and fairly evaluated for funding. The current evaluation and funding process is complex, with no easy method for evaluating accessibility-related activities. One of the key issues to address will be how accessibility-related non-transport activities are considered. For example, smaller territorial authorities may need funding to purchase mapping software for assessment purposes if accessibility planning is introduced nationwide. Likewise, consideration must be given to an evaluation and funding method for multi-agency actions, such as improving access to health facilities for rural communities.

It may be necessary to review the activity classes and their respective work categories set out in the *Programme and funding manual* (PFM) (Land Transport NZ 2007b) and the *Economic evaluation manuals* Vols 1 and 2 (EEM) (Land Transport NZ 2006 and 2005), with a particular focus on the activity classes covering use of the land transport system, passenger transport, renewal of local roads and improvement of local roads. These activity classes include a range of work categories which are likely to be included in regional accessibility plans.

The core indicators would be a valuable addition to the current EEM project evaluation process. The inclusion of these indicators in the EEM would ensure consistency across accessibility planning and national land transport planning, and enable local authorities to demonstrate the benefits of an accessibility-related project submitted for funding consideration. For example, an application for funding for additional bus services may demonstrate an increase in the 'percentage of pupils within x minutes of a primary school by public transport' and an increase in the 'percentage of households within x minutes of a supermarket/food store, doctor, hospital and/or core employment centre'. The RLTP

development process should include the ability to consider a proposed project's contribution to regional indicators as well as the core indicators.

From a land-use perspective, incorporating the funding of accessibility actions in the LTCCP and annual planning processes would maximise access to the available local revenue sources (eg rates and development contributions). This is particularly relevant if development contributions are required to address accessibility issues arising from a new development or subdivision. However, as existing funding mechanisms are not structured to easily accommodate accessibility planning, how local authorities manage the additional challenge that accessibility actions would place on limited revenue streams like rates would need to be addressed. As the LTCCP community outcomes will inform the development of regional accessibility plans, by ensuring that accessibility actions are incorporated in LTCCPs councils would be better placed to prioritise these actions within their own revenue and funding allocations as well as aligning them with the RLTP planning and funding cycle. The RMA financial contributions clause may facilitate the funding of accessibility actions not covered under the LGA development contributions. For example, if a territorial authority has an accessibility provision in its district plan, it could require a financial contribution to address this as a condition of granting resource consent.

6.3.4 Implementation timeline considerations

The reasons for linking the proposed accessibility planning process with existing planning processes are stated throughout section 6. What needs careful consideration is the development and initial roll out of the accessibility planning framework within New Zealand. It is prudent to introduce accessibility planning to coincide with the GPS, RLTS and LTCCP development timelines so that the national accessibility policy and core indicators inform them and the resulting accessibility plans feed into the RLTP process. It is likely this will require a staged approach, starting with the development of the national accessibility policy and GPS priorities, to be released in time for local authorities to refer to them in their LTCCPs (10-year plans). This may be as high level as local authorities stating a commitment to develop an accessibility plan over the next three years for inclusion in their following 10-year plan.

Development of the national accessibility guidelines and core indicators would follow, timed to inform the development of regional accessibility strategies and plans. The release of the first accessibility strategies and plans would coincide with the LTCCP three-yearly update, as the latter would also include any local accessibility issues identified in the community outcomes process. The LTMA switch to a six-yearly RLTS process may require some regional councils to develop stand-alone accessibility strategies so that all regions release their first strategies in the same year, as regional accessibility plans are released simultaneously. This is critical, so that prioritised actions in the regional accessibility plans are submitted to the RLTP prioritisation and funding process.

Implementing the components of a national accessibility planning framework over a number of years would enable all participants to be better prepared as they would be fully aware of the requirements placed on them. Aligning the national implementation process with the LTCCP, GPS, RLTP and RLTS timelines gives local authorities the ability to plan and fund their accessibility activities well in advance, rather than requiring them to try and access resources and funding part way through a LTCCP cycle.

6.4 Organisational responsibility

6.4.1 Central government transport sector roles

As a result of the recent amendment to the LTMA there are now two transport sector organisations at the national level with primary roles in accessibility planning:

Ministry of Transport: The success of a comprehensively applied accessibility planning framework lies in the existence of a national coordinating agency. This role would fall on the Ministry, which would be responsible for the development of the government's accessibility policy, within LTMA legislative and governance arrangements, to reflect the UNZTS targets. It would develop the accessibility planning process, a plan for its implementation and national accessibility planning guidelines. This would be undertaken in consultation with central and local government and other relevant stakeholders, who the Ministry would assemble to form a national accessibility partnership. The Ministry would also coordinate the establishment of the core (national) indicators, building on those that are already populated within the TSSD TMIF, and would track progress towards delivery of the UNZTS targets for access and mobility and the national accessibility policy outcome targets.

The Ministry would ensure that the national accessibility policy and the requirements for the implementation of accessibility planning are appropriately disseminated to central and local government agencies through primary relationships with:

- New Zealand Transport Agency
- Department of Internal Affairs
- Ministry of Social Development
- Local Government New Zealand
- regional councils.

The proposed roles for each of these agencies in the accessibility planning process are expanded on below and the means of information dissemination were discussed in section 6.3.

New Zealand Transport Agency: As the central government agency with the objective of undertaking its functions in a way that contributes to an affordable, integrated, safe, responsive and sustainable land transport system, the New Zealand Transport Agency (NZTA) would facilitate the implementation of the national accessibility policy by working with regional and local government to ensure their statutory documents include/reflect the policy and associated UNZTS targets. It would promote effective relationships between central and local government, providing national-level support and guidance in order to roll out accessibility planning across the country.

The NZTA will be required to give effect to the GPS, which sets out the expenditure ranges for each activity class in the three-yearly NLTP. It will also be responsible for prioritising and funding the projects and activities to be included in the NLTP (Cabinet Economic Development Committee 2007). Therefore it would have to ensure any priorities for accessibility listed in the GPS are reflected in RLTPs and that regionally significant accessibility actions are included for funding consideration.

The NZTA would monitor performance against the core and regional indicators, based on data supplied by the regional councils (in their AMRs) to track delivery of regional accessibility outcomes and targets and national accessibility policy and targets. It would also continue the neighbourhood accessibility planning work which it began as Land Transport NZ, including implementing the recently commissioned work to develop an assessment tool for neighbourhood accessibility. This tool would provide a foundation for any national accessibility assessment process to be developed by the Ministry. It is discussed further in section 6.5.

6.4.2 Other central government roles

Existing relationships between central government social agencies and territorial authorities and the processes these relationships support provide a vehicle to assist with the implementation of accessibility planning. The key coordinating agencies and their proposed roles in the accessibility planning process are:

Department of Internal Affairs: The DIA Central/Local Government IFT provides information to central and local government agencies about the LTCCP community outcomes process. In this role the IFT could support the Ministry of Transport in its work communicating national accessibility policy and accessibility planning guidance to non-transport agencies. To reach local government, the Ministry could work with LGNZ and the DIA IFT to develop strategies to enable the agencies to inform the Ministry and the NZTA of local level accessibility issues identified during the development of LTCCPs.

Ministry of Transport participation in the Central Government Interagency Group and other national and regional networks (coordinated by the IFT) would enable it to liaise directly with other departments during the development of the accessibility planning process and guidelines. Through this and other networks, the Ministry would consult with departments, particularly in the portfolios included in any accessibility assessment (eg, health, education), to establish their access and accessibility needs and use this to inform national policy development. It would take account of other agencies' national strategies and priorities relevant to accessibility and, in turn, would inform these agencies of transport accessibility priorities for their consideration. Participating in this group would also enable the NZTA to better coordinate national-level activities to address accessibility-related community outcomes.

Ministry of Social Development: The MSD FACS group facilitates the LSM process currently being undertaken by each territorial authority. This provides a similar opportunity as the Central Government Interagency Group for the Ministry of Transport and the NZTA to engage with non-transport agencies. However, engagement through FACS would be specifically with territorial authorities and social services agencies represented at the local level. While voluntary, the LSM process is very similar to the English accessibility planning process and includes collation of regional socio-demographic data, stock takes of service providers and the identification of local social priorities for action, including access problems. This information is directly relevant to accessibility planning and would reduce duplication. Furthermore, there is potential for the accessibility-related problems identified in the LSM process to flow into the RLTPs, especially if the social agencies and territorial authorities have been made aware of transport accessibility policy and priorities, via IFT processes.

6.4.3 Local government roles

Local Government New Zealand: Local Government New Zealand (LGNZ) works to secure national policies and legislation that support effective local governance and provides support for, and services to, territorial authorities to enhance local governance (LGNZ 2005). The Ministry of Transport is currently working with LGNZ at a regional level, using the latter's zone meetings to inform territorial authorities and their councils of national transport policy changes, specifically the UNZTS (D. Corlett pers.comm. 2007). Zone meetings would provide the Ministry with an opportunity to inform senior local government officials of the proposed accessibility planning process and canvass their views on this and the national accessibility policy. The six zone groups across New Zealand are based on geographical areas, which may provide the Ministry with location-specific issues it would ordinarily be unaware of.

Regional Councils: Regional councils would undertake the leadership role at the regional level, being responsible for the application of the accessibility planning process for their respective regions. Their role would be the regional equivalent of the Ministry of Transport's national role as they would engage with territorial authorities, sub-national agencies (such as district health boards) and relevant stakeholders through the establishment of regional accessibility partnerships. It would also be very similar to that of the local transport authorities in England, as they would lead and manage the regional accessibility assessment process and collate accessibility information gathered during other council-community processes (eg LSM and LTCCP) for inclusion in regional accessibility strategies and plans, which they would produce and maintain.

The regional accessibility strategy should be incorporated into the RLTS to ensure the consideration of accessibility priorities alongside the other transport priorities of the region. Information gathered during the preparation of the associated accessibility plan would flow into the development of RLTPs, with the identified accessibility actions being included in the RLTP prioritisation process. This process fits with the LTMA requirement for regional councils to prepare the three-yearly RLTPs for their respective regions.

The updated NZTS will guide RLTSs so will need to include accessibility objectives and targets to inform the latter. As regional transport committees will be required to have a representative for each of the NZTS objectives, it follows that these committee meetings are a relevant forum for the Ministry to communicate UNZTS access and mobility targets and GPS accessibility priorities.

The regional councils would also be responsible for coordinating the development of regional indicators and targets, undertaking performance monitoring and reporting to the NZTA.

Territorial authorities and regional councils: Local authorities would be the principal implementers of regional accessibility plans. As the agencies 'at the end of the line' they would work within their regional accessibility partnership to undertake the accessibility assessment and plan development processes to ensure the needs of their respective communities are communicated and met. The earlier recommendations to utilise existing LTCCP, LSM and NAP processes to gather accessibility information should minimise the duplication of information and effort, thereby ensuring these agencies don't suffer from 'consultation and process fatigue'.

Wherever possible, the implementation of actions contained in regional accessibility plans should be undertaken through the RLTP/NLTP and NAP processes. However, as previously stated, an evaluation and funding method for multi-agency actions and for accessibility-related non-transport activities will need to be addressed to minimise any additional financial burden on local authorities.

A number of territorial authorities already have relationships with locally based NZTA education advisors and have experience of accessibility planning through the NAP project. It is expected that these relationships will remain under the NZTA.

Figure 6.2 illustrates the suggested accessibility planning institutional framework, including the key responsibilities of the primary agencies and their interrelationships.

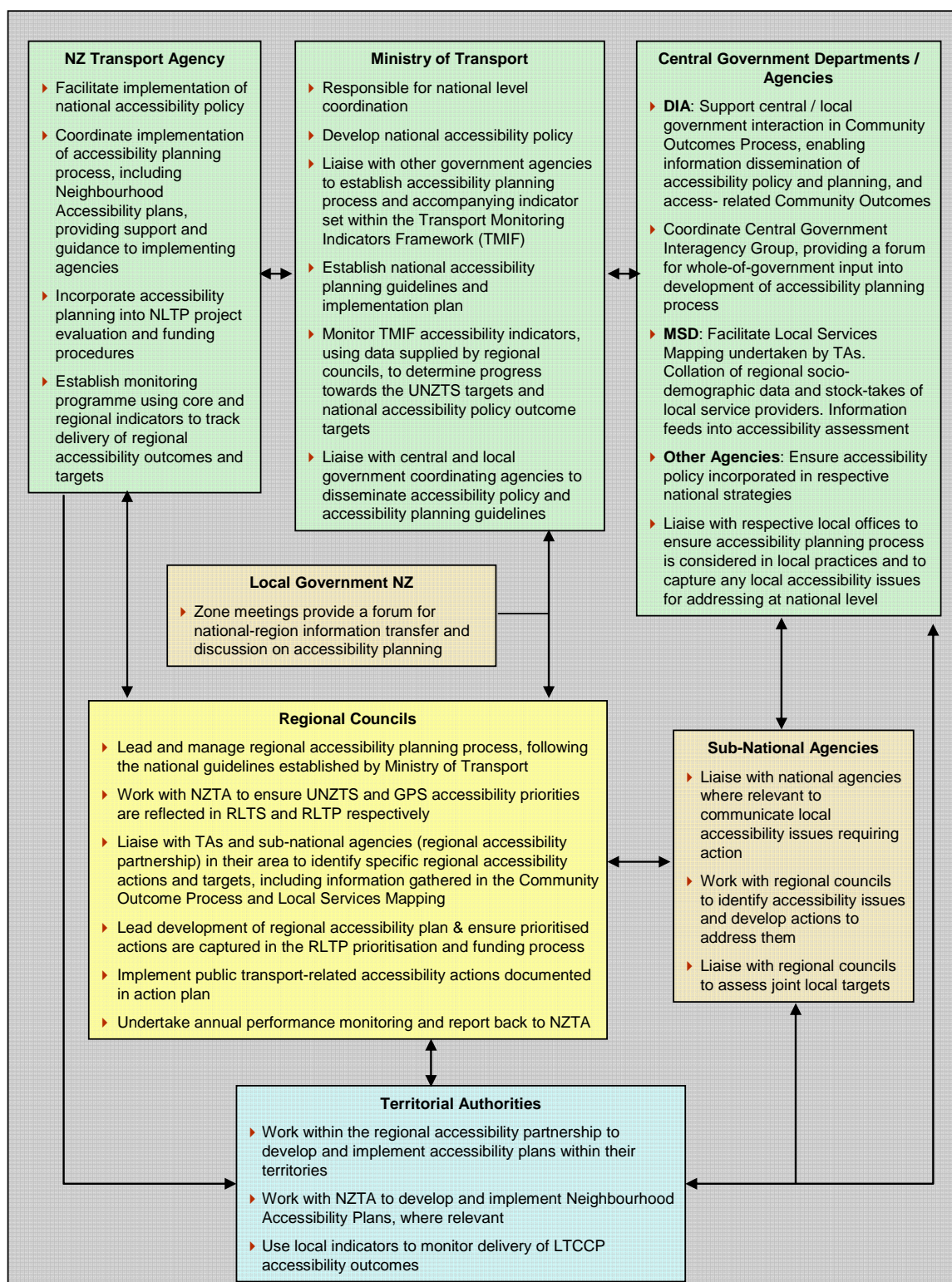


Figure 6.2 Suggested accessibility planning institutional framework.

6.5 Monitoring and indicators

Accessibility indicators quantify accessibility and determine the ease with which an individual, population segment or community can access one or more activities from a residence or other location using the available modes of transport (DfT 2006b) or services and/or technologies. The development and use of accessibility indicators and targets is a critical component of an accessibility planning framework, as indicators and targets have multiple purposes within the process, including to:

- help identify accessibility problems to be addressed (ie accessibility assessment). These may include geographically remote areas or communities, under-performing public transport services, lack of transport alternatives to the private motor vehicle and destinations that are inaccessible for some members of society that need to access them
- monitor progress in delivering (national and regional) strategic priorities
- monitor progress in delivering actions that address the regional accessibility priorities
- monitor the performance of individual projects, for example newly implemented transport services or infrastructure, a land-use development, or a new facility that is measured in the core indicator set. (DfT 2006a).

Withinreach (2006) specifies that good indicators are relevant, measurable, cost-effective, reliable, simple and replicable. Indicators should also relate to each other to provide a picture of current national and regional accessibility and its change over time.

This report has already recommended adapting the English accessibility planning two-tier indicator set, comprising core (national) indicators and regional indicators. The core indicators would be used nationwide to assess high-level accessibility, to compare and benchmark the regions and to monitor national performance against accessibility priorities (eg in the GPS) and targets (eg in the UNZTS). The regional indicators would reflect regional priorities, measuring progress in delivering the accessibility plan actions and complementing the core indicators by providing additional detail to demonstrate progress delivering regional strategic outcomes and priorities. The Ministry of Transport would be responsible for compiling and disseminating the relevant datasets to regional councils and would assist in developing indicators that would be uniform across the country. Such an approach would bring a level of standardisation to the accessibility planning development and measurement processes (BAH 2006).

6.5.1 Existing data sources and indicators

There are a number of significant, publicly available, pieces of work on New Zealand accessibility indicators – the development of indicators, availability of data and modelling tools and the population of existing indicators to determine levels of accessibility. There is also a neighbourhood accessibility assessment tool currently under development for use by territorial authorities. Such information is of direct relevance to this report and is at a level of detail that this research would duplicate if it undertook an analysis and reported on the full range of data and tools available that are relevant to the development of indicator sets. Therefore, it is recommended that the data, findings and recommendations of the following

documents and researchers is incorporated in the process of developing accessibility indicators in New Zealand:

Dr J Pearce and Assoc Prof K Witten. These researchers have produced a number of studies²³ that use GIS mapping (down to census meshblocks) to measure accessibility at a community and neighbourhood level across urban and rural New Zealand. Their work is primarily based around access to community resources and services including healthcare, education, shopping and recreation facilities, public transport, marae and parks to determine residents' health and wellbeing. The analysis of accessibility is based on travel time to the mapped resources/facilities and includes assessment of social exclusion, the relationship between access to facilities and deprivation, and the impact of transport availability on residents. Witten et al (2003) developed a Community Resource Accessibility Index (CRAI), which is a meshblock level indicator of relative access to 36 types of urban services, facilities and amenities grouped into six categories: sport and recreation; public transport and communication; shopping; education; health; and social and cultural. The CRAI is inherently valuable to central government agencies and all local authorities in assessing accessibility to many of the facilities covered by the core indicators.

The government transport sector, led by the Ministry of Transport, is using these data to populate and maintain the 'accessibility of community resources' indicators within the TMIF (C. Lukkien pers.comm. 2008).

Abley Transportation Engineers (2007). This firm is currently developing a tool to assess neighbourhood accessibility for NZTA. The 'Stage 1 – background and feasibility' study includes a review of possible tools and resources used to assess (measure) accessibility and a discussion on their various merits and shortcomings. This includes GIS software, regional councils' journey planning software, customised accessibility assessment software (such as Accession, which is used across England) and a survey of territorial authorities' resources. It also analyses expected data needs, specifies potential data gaps and documents the currently available data and their sources. This report is focused on neighbourhood accessibility assessment from a transport perspective so does not analyse non-transport accessibility-related data sources other than land-use data.

Ministry of Transport. The Ministry manages a number of transport-related datasets and coordinates the population of the TMIF. The national *Household travel survey* is the pre-eminent source of data on individual households' travel patterns, providing 'real' information, including total travel time for actual trips, which traditional transport models are unable to predict accurately. It is a critical component when developing core indicators as the survey can inform the establishment of thresholds and, therefore, enable the monitoring of change in accessibility.

Auckland Regional Public Health Service. The public health and wellbeing report published by ARPHS for Auckland territorial authorities identifies public health priorities, uses health and wellbeing indicators to review the health of the region's residents and provides a tool (that includes mapping) to monitor the region's public health trends. The indicators it developed and populated report on multiple factors affecting the natural, physical, built social and economic environments, healthy behaviours and risk factors and diseases.

²³ See Pearce et al 2007, Pearce et al 2006, Witten et al 2004, Witten et al 2003.

Regional councils. It is worth reiterating the value of the RLTSs and AMRs produced by all regional councils across New Zealand. These documents contain transport objectives, policies and outcomes that link directly to the NZTS objectives, as well as transport targets and indicators that track delivery of the outcomes and objectives. These documents are the obvious starting point for development of regional indicators.

All indicators need to be based on readily available data compiled using a range of tools to ensure the subsequent analysis and indicator development is robust. There are a number of other data sources that should be assessed for their relevance prior to commencing the development of accessibility indicators. These include the documents set out in table 6.1 and cover many non-transport sources. As recognised by Abley Transportation Engineers (2007) and ARPHS (2006), collecting new datasets can be a significant project, which is often made more difficult by the absence of data or by datasets that are inconsistent (eg method, timing, units) between authorities and/or levels of government. Therefore, it is important that from the outset a national accessibility policy is set, and accessibility partnerships agree the level and type of data to be collected and the strategic and regional accessibility outcomes that will be progressed. It is also critical that the development of indicators follows the agreement of the national and regional accessibility priorities, rather than having the currently available information drive the development of priorities. This may mean the New Zealand accessibility planning framework starts with a small set of indicators that are added to over time as more datasets are compiled.

Data needed includes origins (whose accessibility is being measured?), transport modes and networks (how they move from origins to destinations) and destinations (where are they going?). Deterrence factors like travel time, cost, perceived safety, access to information and physical accessibility are also important as they reflect barriers to movement. Considerable raw data are already available to inform the development of indicators. Data sources include the census, national *Household travel survey*, Motor Vehicle Register, transport provider information (usually compiled by regional councils and reported in AMRs) and travel surveys undertaken in some regions. Valid destination data are also available from sources such as the Ministry of Education, Ministry of Health, Ministry of Social Development, Land Information NZ (for geo-spatial data to meshblock level) and academic researchers.

6.5.2 Composite indicator and target

The English accessibility planning framework includes a composite indicator, which combines the core indicators to assist LTAs to prioritise and target action. Development of a composite indicator for New Zealand is not recommended until a national accessibility policy, or in its absence a desired national outcome for accessibility, is determined. Any composite (outcome) indicator developed should reflect the proposed comprehensive accessibility planning framework by being applicable in urban and rural areas and by covering all transport modes and transport alternatives. Thus, it would not pre-empt a particular access solution (eg public transport as measured by the English indicators). Furthermore, it should directly support any targets in the NZTS 2008 to improve access and mobility for 2040 and the TSSD document's directional statement:

The transport system is increasingly providing affordable and reliable community access

6.5.3 Core indicators

The recommended core indicator categories are based on the English and Southern Californian accessibility planning indicators and cover the journey purpose types identified by the UK SEU study as having the most impact on life chances (refer to sections 4.2.4, 4.3.4 and table 4.3). Core indicators within these categories would demonstrate progress towards the UNZTS outcome that 'the transport system is increasingly providing affordable and reliable community access'. Accessibility-related issues and community outcomes acknowledged in the majority of LTCCPs and by the central government social services agencies in policy documents and strategies were also considered when recommending the following core indicator categories as relevant to New Zealand:

- accessibility to school education (primary and secondary schooling)
- accessibility to further education
- accessibility to work
- accessibility to a hospital
- accessibility to a doctor or primary health organisation (PHO)
- accessibility to a supermarket (urban) or food store (rural).

Given the remoteness of some rural communities and residents, measuring access to additional or different activity centres in these areas may be more appropriate, for example:

- accessibility to a petrol station
- accessibility to a pharmacy
- accessibility to a bank, post office or financial services facility
- accessibility to a social services office (Heartland Services, Work and Income, Accident Compensation Corporation, Child, Youth and Family etc)
- accessibility to public transport (including rural school and hospital board buses etc).

The English core indicators focus on journey time by public transport, which is not appropriate in many rural (or even peri-urban) areas here, as New Zealand does not have the population intensity or wide-reaching public transport services that England does. Therefore, more generic indicators and the inclusion of car-based indicators are necessary in order to apply nationwide. The thresholds set will also differ to the English ones, as they must be appropriate to the New Zealand situation. The *Household travel survey* provides total reported travel time for actual trips, which would be used to establish thresholds for the core indicators. Rural and urban thresholds can be set as this survey is continuous and nationwide. Consideration must also be given to how the indicators are measured, for example whether data is gathered over multiple time periods or just, say, during the morning peak period.

For each core indicator it should be possible to compare accessibility for the entire population and those deemed an appropriate proxy for people in (identified) risk groups (DfT 2006a). For example, accessibility to school for children in low decile areas compared with the accessibility of the rest of the school-going population. Comparative indicators can inform national-level policy decisions and assist regional accessibility partnerships to target the problems that most need addressing.

The Ministry of Transport would lead the development of the core indicators, in consultation with stakeholders from across government. It is difficult to recommend specific core indicators for each of the categories without a sound understanding of the current government policies relating to them or a national accessibility policy. Table 6.4 provides a non-exhaustive example of the type of indicators that may be identified in the Ministry-led development process. It incorporates components of the transport system access and threshold indicators described in section 3.2.3.

Table 6.4 Example of New Zealand core indicators.

Category	Sub-group	Indicators and associated thresholds
Accessibility to school education	Primary	% pupils of compulsory school age within 15 minutes and within 30 minutes of a primary school by PT (includes school buses)/walking. % pupils of compulsory school age in deciles 1-4 areas within 15 minutes and within 30 minutes of a primary school by PT/walking
	Secondary	% pupils of compulsory school age within 20 minutes and within 40 minutes of a secondary school by PT/walking and by cycling % pupils of compulsory school age in deciles 1-4 areas within 20 minutes and within 40 minutes of a secondary school by PT/walking and by cycling
Accessibility to further education		% 16-25 year olds within 30 minutes and within 60 minutes of a further education establishment by PT/walking and by cycling
Accessibility to work (no differentiation between types)		% people of working age (16-65) within 30 minutes and within 60 minutes of work by car or PT/walking % people in receipt of unemployment benefit able to reach work by PT/walking
Accessibility to a hospital		% households within 30 minutes and within 60 minutes of a hospital % households that can reach a hospital by PT
Accessibility to a doctor or PHO		% households within 15 minutes and within 30 minutes of a GP % households without access to a car within 20 minutes and within 40 minutes of a GP by PT
Accessibility to a supermarket (urban) or food store (rural)		% of households within 15 minutes and within 30 minutes of a supermarket/food store % of households without access to a car within 20 minutes and within 40 minutes of a supermarket/food store by PT
Accessibility to community/social services office	Towns and Rural	% of households within 30 minutes and within 60 minutes of a community/social services office % of households serviced by mobile social services (eg, heartland services, outreach services)

The above examples only consider percentages within the threshold; however, core indicators should also consider absolute numbers of people or households, as percentage figures can be misleading. As threshold indicators only review accessibility to the nearest activity it is advisable to also develop continuous indicators (see section 3.2.3), as they assess the range of destinations of a particular activity that are available to households. The development of continuous indicators may need to be delayed until standardised data is available from across the country.

The core indicators should all be incorporated in the TMIF once they are signed off by the national accessibility partnership. The Ministry of Transport plans to update the comprehensive set of outcome indicators within the TMIF (monitoring progress towards all five NZTS objectives) annually to inform policy decisions, which should be achievable as a reasonable amount of the data will be sourced from regional councils' AMRs. Sources of data to track the non-transport accessibility indicators may need to be developed, useful sources being existing LSMs and LTCCP monitoring programmes.

6.5.4 Regional indicators and targets

Regional indicators complement the core indicators and support a region's accessibility priorities and outcomes. Therefore, regional indicators should be outcome, not output, focused. Regional councils would lead their accessibility partners in the development of regional indicators. They would also compile and incorporate monitoring results in the AMR. Local authorities are experienced in developing outcome indicators and supporting targets, as they already do so as part of the LTCCP process.

Section 4.2.4 documents the type of subjects that local indicators in England might cover, including example indicators and their potential uses. These examples are valid to the New Zealand situation and are applied in table 6.2, which provides examples of regional indicators in the Wairoa district – three of which came out of the current Wairoa District Council LTCCP. The example indicators in table 4.4 include measurement of a number of the deterrence factors that can present barriers to mobility.

Deterrence factors and indicators that arise from them will vary between and within regions, with much of the information informing the development of such indicators already being available through the LTCCP and LSM processes. The outputs of these processes include community and social outcomes, which, by definition, are an expression of the local community's needs, expectations and perceptions. LSMs also provide analyses of socio-demographic data and the distribution of social services, which will help regions establish comparative and continuous indicators.

Regional accessibility partnerships should also develop targets to specify how the indicators are to change. It may not be necessary to develop a number of targets as one target may relate to a number of regional indicators; in some instances, developing just one composite target may be appropriate.

6.5.5 Accessibility modelling

A detailed analysis of the types of accessibility models, their functionality and capabilities is provided in *Neighbourhood accessibility assessment tool development. Stage 1* (Abley 2007). This includes GIS software applications, customised accessibility assessment tools and journey planning software as used by Auckland, Wellington and Canterbury regional councils. It surmises that it should be possible to transfer some of the functionality from existing models that are run overseas to the New Zealand situation, for example the mapping of outputs and editing of networks. However, as compiling and managing the data is the most time-consuming part of the process, it is more efficient to have bespoke software developed to suit the available data and the accessibility planning needs of councils in both urban and rural New Zealand. This would also address the current situation where standardised datasets

or modelling tools are not used by local authorities, and not all authorities have GIS or transport modelling software that would support accessibility assessment.

6.6 Implementation issues and barriers

Consideration of the following issues would be necessary if implementing comprehensive accessibility planning in New Zealand:

- A national accessibility policy is the recognised starting point for development of an accessibility planning framework. New Zealand currently only has the foundation for such a policy in its UNZTS discussion document.
- All agencies and many stakeholders involved in accessibility planning would incur extra resource costs (ie, staff, equipment and software) associated with all aspects of developing, running and monitoring an accessibility plan. The Ministry of Transport and the NZTA, together with their central government partners, would need to determine how to overcome this matter if accessibility planning is to be successfully implemented.
- The addition of a formal accessibility requirement would increase the compliance burden on local authorities, which must already comply with a significant range of legislation and policy.
- The private motor vehicle is the primary means of transport in New Zealand. Current government transport funding arrangements favour it over other modes. Towns and cities are designed around them and are predominantly relatively low density. Likewise, sparsely populated rural areas are often located some distance from activity centres, with the private motor vehicle being the only means of reaching them. These issues pose problems for the improvement of accessibility and, therefore, for accessibility planning.
- A comprehensive assessment of accessibility would require a focus on access needs as opposed to mobility needs. This has policy implications well beyond the transport portfolio and includes decisions relating to health, education, social policy, housing and economic development.
- Data are not currently available to assess all aspects of accessibility and what is available is not always consistent across sources. Nor is there a central data repository for all accessibility-related data from which comprehensive monitoring can be undertaken.

While the government transport sector would lead accessibility planning, it could not successfully implement it on its own. Solving these issues requires a comprehensive, whole-of-government approach not just the provision of a transport solution for what might or might not be a transport 'problem'.

6.7 Summary

The proposed accessibility planning framework is based on the comprehensive framework employed in England, adapted to the New Zealand situation. It uses existing planning legislation, social services institutional structures, established across-government processes and adopts the changes to the government transport sector recently enacted in the amended LTMA. The Ministry of Transport would lead the development of the accessibility planning process, with the NZTA facilitating and monitoring its implementation at the regional level. Accessibility strategies and plans would be developed and applied regionally, with regional councils leading this process. Existing local, regional and national monitoring frameworks and processes would incorporate the core and regional indicators. This approach would save accessibility partners money and time, and utilise the knowledge and experience of non-transport partners and their existing datasets and stakeholder relationships to help reduce any duplication of effort and avoid consultation 'fatigue'.

Regional accessibility plans would have a direct relationship with the RLTP process as many of the actions listed in the former would become the regional and local transport proposals put up for prioritisation and funding under the NLTP. This would most likely require a review of the land transport funding regime to ensure the fair assessment of accessibility projects that support any GPS priorities. Development of an evaluation and funding method for multi-agency actions and for accessibility-related non-transport activities would be required to minimise any additional financial burden on local authorities.

In the absence of a national accessibility policy, the driver for this framework is the transport sector outcome to increasingly provide affordable and reliable community access. This research considers that the sector outcome applies nationwide and focuses on accessibility to the activities that have the most impact on life chances. Delivering this outcome would also meet many LTCCPs' accessibility-related community outcomes and those in the regional RLTSs.

Perhaps the primary difference between the English framework and the one proposed for New Zealand is that the latter includes private motor vehicles in its assessment. This is due to the lack of alternatives in many rural areas, towns and parts of some cities as well as the geographical isolation of some residents.

Table 6.5 summarises how the proposed framework meets the key components comprising accessibility planning and compares it with the English system.

Table 6.5 Proposed comprehensive accessibility planning in New Zealand.

Criteria	England	New Zealand
Driver	Social Exclusion	Affordable and reliable community access
Spatial focus	Urban and rural areas	Urban and rural areas
Organisational responsibility	Local application National guidance, standards and monitoring	Regionally led local application National guidance, priorities and monitoring
Used for transport plan development	Yes - local transport plans	Yes - regional land transport strategies and programmes
Assessment	Continuous in line with planning cycle One-off as required for projects	Formal: In line with GPS; RLTS; RLTP and LTCCP development Informal: continuous
Process	Five-stage assessment using indicators and stakeholder input	Five-stage assessment using indicators and stakeholder input
Indicators of accessibility	A range of standardised national 'core' indicators Local indicators supplement these as required	A range of standardised national 'core' indicators Regional indicators supplement these as required
Accessibility focus	Education, work, medical and food shopping	Education, work, medical and food shopping
Modal focus	PT Bicycle Walking	Car PT Bicycle Walking
Used for projects	Yes	Yes, for RLTP projects Potentially used as part of the resource consent process

7. Conclusions

7.1 International practice

This research investigated the applicability of accessibility planning in New Zealand. It canvassed international accessibility planning practices in England, the Netherlands and Southern California in order to understand the various drivers for introducing accessibility planning and the different approaches taken in its implementation and assessment. While each case study focused on a different primary driver, all of them share the goal of improving access to activity centres and recognise that accessibility planning is best undertaken at the local level with some form of central government guidance and monitoring.

Of the frameworks investigated, the English comprehensive accessibility planning framework is proposed as the most relevant to New Zealand. This is because, while these two countries have vast differences in population density, level of motor vehicle use and public transport provision, they do have similar styles of government and sub-national transport planning frameworks. However, the English framework focuses on measuring access via public transport, which is not relevant across New Zealand as many towns, rural areas and even some city suburbs are not serviced by public transport. Therefore, any nationwide assessment of accessibility should include all modes of transport as well as technological and non-transport solutions.

7.2 Applying accessibility planning in New Zealand

The comprehensive accessibility planning framework proposed by this research best meets the brief of this project outlined in section 1.2.

The success of accessibility planning in New Zealand is reliant upon the development of a national accessibility policy that clearly states the whole-of-government position on accessibility, including how and when the policy actions would be introduced. The comprehensive approach that is proposed for implementation across New Zealand is done so in the absence of such a policy, but supports the government transport sector outcome that:

The transport system is increasingly providing affordable and reliable community access.

It also supports and contributes to delivering regional and local accessibility outcomes specified in the majority of councils' LTCCPs.

Implementing a comprehensive accessibility planning framework has the potential to increase collaboration between the traditionally disparate disciplines of transport planning, land-use planning and social services. In doing so, accessibility would cease to be perceived as just a mobility or physical access issue, as non-transport perspectives and solutions are an integral part of the process. This framework requires one national agency, the Ministry of Transport, to coordinate and lead the process that would include all sectors and levels of government and the community.

The changes to the land transport sector that were recently enacted through the amended LTMA, together with the release of the UNZTS in mid-2008 provide an opportunity to introduce accessibility planning across the transport sector. The UNZTS specifies access outcomes and targets to 2040 that influence the priorities stated in the GPS. The inclusion of accessibility priorities in the latter will be critical to the success of the framework, as the GPS is a statutory document that determines the NLTP expenditure streams by transport type.

Current local government and social services frameworks and processes can readily accommodate accessibility planning. While it is not easy to amend the LGA to provide for accessibility planning, existing LTCCP, community outcomes and LSM processes are flexible enough to include accessibility considerations if directed to. Accessibility planning would be integrated into these processes in line with the LTCCP 10-year plans, GPS and RLTS development timelines so that the national accessibility policy and core indicators inform them. It would also enable local authorities to develop their accessibility plans to feed into the RLTP process. One key factor that would require addressing is how to deal with the additional resource (ie staff, time, financial) requirements that would be placed on the organisations involved in accessibility planning, especially local authorities.

7.3 Information and resource requirements

Considerable relevant information already exists to inform the accessibility assessment and option appraisal steps in the process. Wherever possible the recommended accessibility planning framework uses existing processes, resources and information sources to reduce the duplication of effort and create efficiencies at all levels of the process. The most relevant interagency processes on which to leverage accessibility planning operate at the regional and local levels of government via the DIA Central/Local Government IFT and the MSD FACS Group.

Local authorities are about to commence their third round of LTCCPs, which means they are already adept at consulting stakeholders, assessing community needs (including detailed data gathering and analysis) and developing action plans, outcomes, outcome indicators and targets. The majority of LTCCPs already contain community outcomes requiring improved access and/or accessibility together with actions to address them and related outcome indicators to measure progress. LSM overlaps with the community outcomes process as they share stakeholders and often identify similar outcomes. These processes would be excellent vehicles for inter-agency collaboration throughout the implementation and operation of accessibility planning, and their outputs are an ideal starting point on which to develop regional accessibility plans.

Unfortunately, existing information sources, data and modelling tools are not as adaptable to accessibility planning. There are a number of government-owned national data sources, including the *Household travel survey*, census, and property and land parcel information that can inform development of national strategic priorities and core indicators. However, the type of data and their collection methods at the local and regional levels are currently inconsistent and insufficient to support comprehensive accessibility planning. New, standardised, datasets and accessibility modelling tools are required to ensure a consistent approach to regional accessibility monitoring. At the regional level, regional councils would incorporate accessibility reporting in to their AMRs.

The TMIF is a recently developed data repository, maintained by the Ministry of Transport, which is currently being populated. It is the logical location for the core indicators; however, reassessment of the access and mobility categories must occur to enable the collection of data that monitor the core indicators.

7.4 Policy implications

Implementing comprehensive accessibility planning in New Zealand has the potential to contribute to the delivery of policy outcomes across the transport, health, education, housing, social services and economic development portfolios, among others. By employing a collaborative whole-of-government approach, led by the Ministry of Transport (as the Ministry responsible for improving access and mobility) via the existing Central Government Interagency Group, the objectives and outcomes specified in many government strategies may be delivered over time. As previously stated, the first step in the process would be to develop a national accessibility policy, agreeing and incorporating the relevant priorities and outcomes sought by all partner agencies. The resulting accessibility policy would inform the development of policy and work programmes of the partner agencies and enable regional councils to coordinate their accessibility partnerships in regional accessibility planning.

The monitoring regime (see sections 6.3.1.5 and 6.5) would have feedback loops so that accessibility data collected regionally informs various national policy documents. This feedback cycle is currently only within the transport portfolio, so a process to ensure the monitoring regime informs non-transport policy needs to be agreed amongst the national accessibility partnership.

8. Recommendations

Many central government agencies and all local authorities and their communities already recognise the importance of good access and accessibility to enable residents to participate fully in society. Accessibility planning has the ability to improve the life chances of all New Zealanders by delivering improved accessibility to key services and activities such as education, medical facilities, employment, food shopping and community/social services. It does this through the detailed assessment of origins, modes of transport (and transport alternatives) and destinations, together with the identification of the needs of individuals, groups and communities. This research recommends the implementation of a comprehensive accessibility planning framework across New Zealand, pending the following actions being addressed.

8.1 Central government

The Ministry of Transport has to establish strong relationships and commitment from a diverse range of stakeholders in order to introduce comprehensive accessibility planning. It is recommended that the Ministry seeks support from the DIA's Central/Local Government FACS team in its work to engage with other departments to:

- establish their level of commitment to comprehensive accessibility planning and to develop the accessibility planning process and guidelines
- agree on the method of implementing accessibility planning across the country. For example, a phase roll-out based on (say) density, or areas with public transport, or local authorities with existing modelling and software tools
- consult during the development of the national accessibility policy
- identify and agree national strategic priorities for accessibility
- agree on the national datasets that will inform accessibility assessment and indicator development and population
- develop the core indicator set
- simplify the land transport funding arrangements and ensure that NLTP funding categories and allocations support the GPS priorities
- establish a means of prioritising and funding non-transport accessibility projects or solutions. This will require an investigation into the current funding processes of all central government accessibility partners.

The Ministry must also liaise with the NZTA, the MSD's FACs group, LGNZ and the NZ Society of Local Government Managers during the development of the national accessibility planning guidelines. The guidelines produced by these organisations on NAP, LSM and LTCCPs can be readily adapted to accessibility planning, as these processes target territorial authorities and include guidance on information collection and action plan development and implementation.

The NZTA is required to give effect to the GPS, which will set out the expenditure ranges for each activity class in the three-yearly NLTP and prioritise the funding for projects and

activities included in the NLTP. It is recommended that the NZTA review, amend and simplify the project evaluation and funding procedures to ensure that accessibility actions (in RLTPs) can be evaluated accurately and fairly. This may require a review of the activity classes and their respective work categories and the inclusion of some accessibility projects or activities not traditionally considered transport related.

8.2 Regional and local government

The following recommendations apply to the introduction of accessibility planning at the regional level:

- undertake a stock take of the current capability and resources of all local authorities to establish what is physically required to implement a nationwide accessibility planning framework
- introduce a bespoke accessibility assessment modelling tool to create a standardised approach and consistent data collection and monitoring across the country. Such a tool should be funded by central government as it is critical to the successful implementation of comprehensive accessibility planning
- introduce and run accessibility planning in line with LTCCP, GPS and RLTS planning timelines
- use the results of the accessibility assessment process to inform the identification of local and regional projects that comprise the RLTP.

8.3 Further research

Further research is recommended to identify the costs associated with developing and implementing nationwide comprehensive accessibility planning. This includes the cost of additional resources required within all potential key stakeholders and the identification of relevant funding sources to cover such development and implementation costs.

Investigation of the potential for and impact of including accessibility planning at the project level is recommended. For example at the district planning level, determining the benefits and potential costs (additional resources and financial 'burden') of including regional accessibility priorities in regional and local resource consent processes, say as a condition of granting consent. The role of existing tools and processes such as the NZTA's NAP, ARTA's (2006) *Integrated transport assessment guidelines* and local government urban design guidelines should be taken into account in this investigation.

Further investigation is recommended to quantify the potential scale and scope of benefits achievable from the introduction of comprehensive accessibility planning. This can include, but not be limited to:

- an investigation into what has been achieved in other countries²⁴. This should include the time frame and cost of roll-out, together with how long it takes before desired benefits are seen
- the trialling of accessibility planning in New Zealand by undertaking case studies in rural and urban areas.

Development of accessibility planning guidelines should be undertaken following the completion of any New Zealand accessibility planning case studies. This will enable the guidelines to be informed by the results of the case studies as well by as any investigation into what has been achieved by accessibility planning in other countries.

The changing transport environment requires that more consideration be given to issues affecting accessibility in the future. Such factors to consider include escalating travel costs relating to climate change, increased demand for oil, population growth, associated pressures on urban expansion, and demographic changes in society, particularly the aging of the 'baby boomers'. Accessibility planning may appear to be a time-consuming and expensive way of solving transport problems. However, this research shows that it employs a cross-sector approach to implement solutions that have the potential to improve the quality of life for all New Zealanders.

²⁴ This information was not readily available when this research was underway.

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Appendix A: Examples of central and local government strategies and policies recognising accessibility

Agency name	Strategy/project	Statement on accessibility	Steps	Accessibility outcomes	Accessibility indicators
Auckland City Council	<i>Avondale draft future framework</i>	Support opportunities for community and visitors to participate in community life	Implement walking and cycling improvements and improve facilities for people with disabilities	Nil	Nil
Auckland region's city and district councils, Auckland Regional Council	<i>Auckland regional growth strategy</i>	Sustain a high-quality living environment and a region that is easy to get around	Review and support the regional land transport strategy to protect future transport options, including corridors and facilities for public transport and roads	Achieve efficient access to activities and social infrastructure for all	Nil
Christchurch region's city and district councils, Environment Canterbury, Transit NZ	<i>Greater Christchurch urban development strategy and action plan</i>	Encourage and promote accessibility for all, including people with disabilities, youth, older people and families with children	Encourage active transport and ensure the network is pedestrian and cycle friendly Locate housing within walking distance of passenger transport	Nil	Nil
Wellington region's city and district councils, Greater Wellington Regional Council	<i>Wellington regional growth strategy</i>	Provide equitable access for all, to educational, social, economic and recreational activities	Nil	Efficient connections and access	Social connectedness Civil participation Education Health of the community
Ministry of Education	<i>Team-up: Helping our kids learn</i>	Ensure education is accessible for all students regardless of their geographic location or special needs	Provide school transport assistance in rural areas where no public transport is available (conditions apply) Fund school bus services	Nil	Nil

Appendix A: Examples of central and local government strategies and policies recognising accessibility

Agency name	Strategy/project	Statement on accessibility	Steps	Accessibility outcomes	Accessibility indicators
			Public transport allowance Taxi service for students with special needs Allowances to parents for taking children to school, where no public transport is available		
Housing New Zealand Corporation	<i>Programme of action</i>	Increased integration of housing with community and other services	Develop the private rental market	Nil	Nil
Department of Building and Housing	Media release 2005: Tenants and landlords to get better access to broader range of services	Enhance the way tenancy services are delivered to tenants and landlords	Regular scheduled visits from Department of Building and Housing More communities to receive advice and mediation services	Nil	Nil
Ministry of Health	Health Impact Assessment case studies. The Avondale Liveable Communities Plan	Nil	Assist central and local government policy analysts and advisors in policy areas such as housing, education, employment, transport and other social sectors	Greater access to community facilities	Nil
Ministry of Social Development	<i>The social report 2007</i>	Nil. Five of the 10 domains have outcomes specifying access	Annual report monitoring trends across 10 'domains' to provide a picture of wellbeing and quality of life in NZ Survey-based and empirical data report that monitors social outcomes for the NZ population across 40 indicators	Everybody has access to: meaningful, rewarding and safe employment adequate income and decent, affordable housing that meets their needs an adequate range of opportunities for leisure and recreation	Nil. Access is assumed based on measures of participation

Agency name	Strategy/project	Statement on accessibility	Steps	Accessibility outcomes	Accessibility indicators
				<p>natural areas and public spaces.</p> <p>NZ is an inclusive society where people are able to access information and support</p>	
<p>Ministry of Social Development, Heartland Services</p>	<p>Heartland Services</p>	<p>A government funded interagency initiative providing people in provincial and rural New Zealand with access to government services</p>	<p>Heartland Service Centres exist or Outreach Services are provided by a range of government social agencies in provincial and rural towns across all districts in New Zealand. This reduces the need for residents to make long trips to urban centres to access these services</p>	<p>Nil</p>	<p>Nil</p>
<p>Ministry of Transport</p>	<p><i>Sustainable transport: Update of the New Zealand transport strategy discussion paper</i></p>	<p>All individuals have access to the facilities and activities they need, such as work, education, medical care and shopping centres, to participate in society</p>	<p>Improve the efficiency of existing infrastructure Traffic demand management Construct new infrastructure Provide alternative modes of transport</p>	<p>Improved, reliable access to the facilities and activities that enable individuals to be part of society and the economy</p>	<p>Nil</p>

Appendix B: Current land transport and planning legislation

This appendix was written prior to the establishment of the NZ Transport Agency and refers to the two agencies, Land Transport NZ and Transit NZ, which merged to form the new agency.

Current principal land transport legislation

Source: Booz Allen Hamilton 2007a.

The legislative framework for transport planning in New Zealand is laid down in the Land Transport Act 1998 (LTA), the Land Transport Management Act 2003 (LTMA) and the Transport Services Licensing Act 1989 (TSLA). The following is an overview of the key provisions that bear on transport sector planning and decision-making with long-term implications.

Land Transport Act 1998

The following description of the Land Transport Act is consistent with its current provisions (as at December 2007). The Land Transport Management Amendment Bill will bring the enabling provisions for a national land transport strategy (NLTS) and for regional land transport strategies (RLTSs) into the Land Transport Management Act 2003 from the Land Transport Act 1998. This will consolidate all land transport planning provisions into one Act.

As the Act currently stands, part 13 sets out a regime for the development of national and regional land transport strategies. In particular, the Minister for Transport may cause to be prepared, but is not obliged to prepare, a NLTS, which may include Crown goals, policy objectives and targets to meet those objectives. A NLTS has a 10-year life, unless otherwise specified or unless the strategy is modified or revoked by the Minister. As suggested by the name of the Act a NLTS can deal with land transport (including coastal shipping); however, it seems it cannot deal with maritime transport or aviation. Once the strategy has been made, it must be taken into account by Land Transport NZ, Transit NZ and the Ministry of Transport.

No NLTS has been made under the LTA. Perhaps because it seeks to address all modes, including aviation and maritime, the present *New Zealand transport strategy* (NZTS) is not a NLTS for the purposes of the LTA²⁵.

Conversely, part 13 of the LTA obliges every regional council to prepare a RLTS that is required to contribute to the overall aim of the Act²⁶, and take account of and be consistent with any relevant NLTS, amongst other things. S.176(1) requires that RLTSs have a life of

²⁵ The report of the Ministerial Advisory Group on roading costs (p.24) indicates that this is the case. The draft report on the *Next steps review* (Ministry of Transport 2007c) also makes the point that a NLTS has not been made.

²⁶ Interestingly, the aims of the Act do not refer to land transport strategy or planning. The aims tend to refer primarily to road user behaviour and road safety. However, it could be argued that the aim of integration and responsiveness refers to strategies and planning.

between three and 10 years (but not more than 10 years) and must be reviewed at least once every three years.

The development of each RLTS is overseen by a regional land transport committee, comprising representatives from territorial authorities within the region and other community members (who usually represent particular interests). Local government representatives have occasionally questioned how accountable some community representatives actually are and have also questioned the size of some committees (some have over 30 members).

The Act also requires that Land Transport NZ (but not the Ministry, Transit NZ or ONTRACK) be represented on the committees. In preparing their RLTS, regional councils are required to consult with a range of local interests and with Land Transport NZ and Transit NZ (but not the Ministry or ONTRACK). Once a RLTS has been adopted, Land Transport NZ and Transit NZ must take account of the strategy. Similarly, the Ministry must take account of RLTSs in relation to certain annual reporting functions under the LTMA.²⁷ Regional councils are required to prepare annual reports on progress with implementation of the RLTS.

The requirements for producing a RLTS in Auckland are different from those for other regions. Amongst other things, the LTMA created the Auckland Regional Transport Authority (ARTA) as an organisation, and it also changed the provisions for the Auckland RLTS. For example, the Auckland RLTS must not refer to individual projects, and must instead focus on strategic direction and concepts.²⁸ The implementation of that strategy (ie project proposals and procuring of transport services) is then the responsibility of ARTA to manage.

Land Transport Management Act 2003

The Act's purpose is to contribute to the aim of achieving an integrated, safe, responsive, and sustainable land transport system, ie it gives legislative effect to the broad objectives of the NZTS. The Act plays a critical part in the translation of the Government's transport goals and strategies into specific actions and budgets. In particular, the Act establishes the regime for a degree of hypothecated funding to land transport, and sets out requirements for the development of a National Land Transport Programme (NLTP). In developing the NLTP, Land Transport NZ must take account of any current NLTS, current RLTSs and the *National energy efficiency and conservation strategy*.²⁹ However, the NLTP does not have to be consistent with those strategies.

Part 2 of the Act deals with funding. In essence, all proceeds from road user charges levied under the Road User Charges Act 1977, motor vehicle registration and driver licensing charges, excise duty, certain goods and services tax and any public money voted by the Parliament (less amounts associated with the collection of some of these revenues and less

²⁷ The reporting obligations appear to be anomalous in that they largely relate to sections of the Land Transport Management Act that have been repealed. The only provision still active (s.34 of the LTMA) concerns reporting by the Ministry on activities involving the police.

²⁸ These changes were included in the Local Government (Auckland) Amendment Bill 2004. The Hansard record of the Parliamentary debate on the Bill appears not to provide any statement as to why this distinction has been made for the Auckland RLTS. The reason appears to lie in a desire to draw a distinction at the regional level (akin to that at the national level) between the setting of strategy and the decisions on the allocation of funding. Relevantly, some speakers in the Parliamentary debate referred to the potential for confusion over the roles of the Auckland Regional Council and ARTA.

²⁹ S. 19(4) of the LTMA

an amount payable to the Commissioner of Police for various policing services approved by Land Transport NZ) is deposited into the National Land Transport Fund.

Various revenues otherwise available to Transit NZ, eg proceeds from the sale of land, may be offset against funds distributed by Land Transport NZ. However, some funds received directly by Transit NZ, eg developer contributions, and charges associated with the issuing of permits for using overweight vehicles are not being offset against funds received from Land Transport NZ. This recognises that the developer contributions are intended for upgrades of the State Highway network attributable to demand arising from new land development (although there is a question as to why such contributions might not also be used for public transport by regional councils and similarly not be set off). Equally, Transit NZ's retention of overweight vehicle permit fees recognises the desirability of using the fees to pay for incremental road maintenance costs associated with the operation of overweight vehicles.

The LTMA also provides a regime for the assessment and development of toll road projects. Prior to the LTMA, toll projects were legislated into existence through individual legislative processes, ie an Act needed to be passed for each proposed tollway project. The LTMA sets out a generic framework which enables a project to be tolled if a number of legislative tests can be passed to the satisfaction of the Minister.

Transport Services Licensing Act 1989

The Act requires regional councils to prepare regional passenger transport plans (RPTPs) specifying any passenger transport services they wish to have provided in their region. Regional councils may contract with passenger transport operators for the provision of services on these routes (even if commercial operators are already providing services on these routes).

Commercial passenger transport operators are required to register commercial services with the relevant regional council. There are limited grounds upon which a regional council can decline such a registration.

Any RPTP prepared by a regional council must be included in its RLTS.³⁰

Rail Network Bill

The Rail Network Bill, introduced in March 2005, establishes the long-term structure of the New Zealand Railways Corporation (ONTRACK). The Bill changes the status of ONTRACK from being a state-owned enterprise to a Crown entity and provides more modern governance arrangements. It also aligns the objectives and functions of ONTRACK with the NZTS.

Under the Bill, ONTRACK is required to prepare a 10-year capital development programme in order to contribute to the government's aim of a more consistent and integrated approach to land transport funding and management.³¹

³⁰ S. 175(2)(k) of the LTA

³¹ Ministry of Transport, 2006

Current principal planning legislation

Resource Management Act 1991

The Resource Management Act 1991 (RMA) is New Zealand's principal piece of environmental management legislation. The Act's purpose is to promote the sustainable management of natural and physical resources. 'Sustainable management' is defined to include sustaining the capacity of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations. The Act is administered by the Ministry for the Environment, though most decisions under the Act are taken by regional councils and territorial authorities.

The RMA introduced an effects-based approach to dealing with impacts on the environment. Different organisations have responsibilities for 'resource consent' processes (typically territorial authorities), and these processes usually include an Assessment of Environmental Effects.

The Act provides for the making of national and regional policy statements. To date, only one national policy statement (dealing with the management of natural and physical resources in the coastal environment) has been made. Two others – in relation to electricity generation and transmission, and sustainable water use – are under development. A Flood Risk National Policy Statement is also being developed. Any Minister can gain approval to scope a new topic for a national policy statement. However, the Minister for the Environment provides an overview and advisory role when another minister leads the initial scoping stage of policy development.

A NLTS made under the LTA may not be inconsistent with a national policy statement under the RMA. Similarly, a RLTS may not be inconsistent with any national policy statement or relevant regional policy statement in force under the RMA.

Local Government Act 2002

The purpose of the Local Government Act (LGA) is to provide for democratic and effective Local Government that recognises the diversity of New Zealand communities. To that end, the Act:

- states the purpose of local government
- provides a framework and powers for territorial authorities to decide which activities they undertake and the manner in which they will undertake them
- promotes the accountability of territorial authorities to their communities (this has been seen by some as central government devolving responsibility to local government without the commensurate resources to meet the devolved responsibilities)
- provides for territorial authorities to play a broad role in promoting the social, economic, environmental, and cultural wellbeing of their communities, taking a sustainable development approach.

The Department of Internal Affairs administers the Act. The LGA requires territorial authorities to prepare a 10-year long-term council community plan (LTCCP), which is to be reviewed every three years. The LTCCP describes the community outcomes, as well as the priorities and activities the territorial authority will undertake to contribute to the outcomes.

The plan is designed to integrate decision-making and include information on the key policies of the authority. It also describes linkages between activities and how they are funded.

LTCCPs are audited by the Office of the Auditor General, both as to the process for their development and their content. The results of those audits are reported to Parliament. Local Government believes the LTCCP process requires regional councils and territorial authorities to be transparent and accountable. It further believes that that accountability is not replicated by central government. For example, it argues the LTCCP process requires regional councils and territorial authorities to identify and commit to long-term (perceived as 10 year) funding arrangements to meet identified community outcomes, yet central government does not do likewise.

The LTMA enables the LTCCP to be used as the land transport programme (LTP), provided that certain requirements are met. Most territorial authorities avail themselves of this approach.

The LGA also empowers territorial authorities to seek development contributions towards the provision of 'network infrastructure' (which includes 'roads and other transport'). Contributions may only be used for capital costs (not maintenance and operations) associated with infrastructure attributable to the development. The Act requires that before a development contribution may be required by a council, there must be a 'development' in terms of s197 of the Act and a direct causal nexus between that 'development' and the demand for infrastructure it, either alone or jointly with another development, generates.

Local Government (Auckland) Amendment Act 2004 (LGAAA)

The LGAAA was introduced in 2004 for the Auckland region, due to the increasing growth pressures being faced by the city. The purpose of the Act is to improve the integration of the Auckland regional land transport system and the management of land transport funding and assets for the Auckland region. Part of the purpose of the Act is to also require Auckland territorial authorities to make changes to policy statements and plans prepared under the RMA 1991, in order to integrate the transport and land-use provisions. The Act pre-empts how this might be done requiring these provisions to be consistent with the 'growth concept' in the *Auckland regional growth strategy* (Tremaine 2006).

Appendix C: Glossary and abbreviations

Activities	All activities, goods, services and destinations that are needed by individuals
Active modes	Includes walking, cycling and other non-motorised modes of transport
AMR	Annual monitoring report
ARC	Auckland Regional Council
ARPHS	Auckland Regional Public Health Service
ARTA	Auckland Regional Transport Authority
C&C DHB	Capital and Coast District Health Board
CRAI	Community Resource Accessibility Index
DBH	Department of Building and Housing
DfT	Department for Transport (United Kingdom)
DHC	Derek Halden Consultancy
DIA	Department of Internal Affairs
ECMT	European Commission of Ministers of Transport
EECA	Energy Efficiency Conservation Authority
EEM	<i>Economic evaluation manual</i>
FACS	Family and Community Services
FHWA	Federal Highway Administration
Framework:	A supporting or underlying structure
FTA	Federal Transit Administration
GIS	Geographic information system
GP	General practitioner (doctor)
HBDHB	Hawke's Bay District Health Board
HBRC	Hawke's Bay Regional Council
IFT	Interface Facilitation Team (DIA Central/Local Government)
ISTEA	Intermodal Surface Transportation Efficiency Act
LGA	Local Government Act 2002
LGAAA	Local Government (Auckland) Amendment Act 2004
LGNZ	Local Government New Zealand
LGRA	Local Government Rating Act 2002
Local authority	A regional council or territorial authority
LTA	Land Transport Act 1998

LTCCP	Long-term council community plan
LTMA	Land Transport Management Act 2003
LTMAA	Land Transport Management Amendment Act 2008
LTP	Land Transport Programme
MoE	Ministry of Education
MoH	Ministry of Health
MoT	Ministry of Transport
MPO	Metropolitan planning organizations
NAP	Neighbourhood accessibility plan
NZES	New Zealand Energy Strategy
NZEECS	<i>New Zealand energy efficiency and conservation strategy</i>
NLTF	National Land Transport Fund
NLTP	National Land Transport Programme
NZTS	<i>New Zealand transport strategy</i>
Objective	A goal or aim
OECD	Organisation for Economic Cooperation and Development
Outcome	A state or condition of society, the economy or the environment and includes a change in that state or condition (a consequence).
Outcome indicator:	A measure that is used to track changes in the outcome
Output:	Goods or services that are (or are to be) supplied by a person or organisation
PFM	<i>Programme and funding manual</i>
PHO	Primary health organisation
Process:	A series of actions or steps towards achieving a particular end
PT	Public transport
RTC	Regional transport committee
RLTP	Regional land transport programme
RLTS	Regional land transport strategy
RMA	Resource Management Act 1991
RTPs	Regional transportation plans
SCAG	Southern California Association of Governments
SEU	Social Exclusion Unit
SOLGM	New Zealand Society of Local Government Managers
TA	Territorial authority
TDM	Travel demand management

TEA-21	Transportation Equity Act for the 21st Century
Territorial authority	A city council or a district council
TMIF	Transport Monitoring Indicators Framework
Travel horizons	Artificial (often self-imposed) travel boundaries that define the area in which an individual will travel and usually related to socio-economic circumstances
TSA	Transport system access indicators
TSLA	Transport Services Licensing Act 1989
TSSD	Transport sector strategic directions
UDP	Urban Design Protocol
UK	United Kingdom
Unitary authority	A territorial authority that has the responsibilities, duties, and powers of a regional council
UoW	University of Westminster
VTPI	Victoria Transport Policy Unit
WDC	Wairoa District Council
WRS	Wellington Regional Strategy