

Raising the Bar: Towards an Effective National Infrastructure Plan

15 February, 2011

1 Overview

A national infrastructure plan is only useful to the extent that it helps overcome a very real failure: the failure of coordination across public sector agencies, regional authorities and the private sector. Coordination, in this context, is not some feel-good idea of everybody happily agreeing with everybody else. Rather, coordination implies a practical process for trading-off legitimate interests, cutting across individual patches and achieving a solution which achieves the best overall results.

All organisations plan. Government agencies and regional bodies have formalised planning processes. A national plan would be of little value if it simply sums up the existing plans. However, a national plan can be very useful if it cuts across the existing boundaries, ensuring that the “big picture” is seen by all with an influence on infrastructure outcomes.

A national infrastructure plan has an important role in revealing the interdependencies and interrelationships between these actors, and in providing a basis for resolving the contradictions. The purpose of the plan should be to induce all relevant actors to act in a consistent manner.

This coordination function of the national infrastructure plan is particularly important for the private sector. Businesses which supply the infrastructure sectors, or provide infrastructure services themselves, need a clear sense of the overall direction in order to ensure that their investment delivers the best value to the country as a whole. Equally importantly, businesses which are major users of infrastructure services need to understand what it is that they can plan on.

Preparing a national infrastructure plan is genuinely difficult. The tension induced by the competing tradeoffs is extreme. Consider that such a plan must:

- Make complex and detailed economic, technical and political tradeoffs in an uncertain environment and based on imperfect information—for example what is the optimum mix between transport modes (road, rail, sea and air) that will best support the New Zealand economy in 2030?
- Be dynamic and flexible and respond to future changes at the same time as being sufficiently solid and static to be relied upon by Government agencies, regional bodies and the private sector to initiate and undertake implementation in an appropriate timetable

- Must be aspirational, provide leadership and bring forward projects while being economically justified, practical, implementable and credible; and
- Clearly identify causes of problems and not just symptoms. In other words the plan needs to identify the underlying causes of current infrastructure shortfalls and propose strategic solutions that do more than just fix the symptoms.

As a result of this tension, there is always a risk that a national plan will slip into nothingness—becoming a high level statement of good intent and broad hopes for improvement.

For this reason, a national plan is only as good as the tangible infrastructure targets and investment principles which emerge from the process of developing the plan. The coordination requirement of the plan can only be met if all involved are able to tell whether what they are doing fits or does not fit with the plan. If a plan is so non-specific that pretty much everything seems to fit, then it is not a useful instrument.

The process of developing goals is an important aspect of the plan. A shared and agreed set of goals across agencies, regional bodies and the private sector will give the plan credibility and ensure support. The goals must be quantifiable so that progress against the plan can be measured—if we don't know where we are going how will we know when we get there?

In this report we look at:

- Why have a National Infrastructure Plan—what is the purpose of a national infrastructure plan, what do users want from such a plan and what are the benefits?
- Who should run the planning process?
- Does good infrastructure flow from a good plan?
- How do we set targets and goals for an infrastructure plan?
- How do we set strategies to achieve the goals and targets?
- How do we ensure project delivery?
- Thus what should be the content and process of a National Infrastructure Plan?
- What different approaches have been taken in other jurisdictions? What are their strengths and weaknesses?

2 Why a National Infrastructure Plan?

Infrastructure planning happens in many Government departments and agencies, in many different regional bodies and in both the public and private sector.

While this detailed planning is entirely appropriate and necessary there are several needs that are not being met by this approach and that require a more “whole of government” and “national” approach:

Co-ordination and context

Individual agency plans, for example can be too narrow. Traditionally, there was concern that transport bodies, such as the New Zealand Transport Agency, see the answer to urban road congestion as more roads. Allocation of additional responsibilities for public transport procurement to the NZTA addresses that problem to some extent. However,

that still frames congestion issues purely in terms of transport solutions. A more “whole of Government” and “national” solution might, for example, involve changes to land use and measures to encourage regional development—a much wider range of solutions. Thus, a national plan has the potential to coordinate and optimise all of the planning work done by individual Government departments and agencies and regional bodies in order to:

- Identify and implement a broader set of solutions that may be more efficient than the solutions from the traditional planning silos
- Help to overcome parochial interests
- Help to channel efforts of numerous autonomous players (both public and private sector) in a common direction.

Interrelationships and interdependencies

Individual agency, regional and sectoral plans if developed in isolation and without the unifying theme of a national plan will not take account of the complex interrelationships and interdependencies inherent in the provision of infrastructure. As an example, the rail investment program will have a significant implication for the future of the port industry in New Zealand. A road investment program which responds to current port plans, and does not take into account the rail investments, and the likely changes to the overall logistics chain which will flow from that is likely to be inefficient, and may lead to stranded assets.

As part of this recognition of interrelationships and interdependencies, a national infrastructure plan can act as a signal and driver for complementary action by the private sector. For every Government funded or initiated infrastructure project, there are a wide range of private sector projects that complement and support that infrastructure. As an example, a strategic plan for the development of a transport corridor will lead to substantial private sector investment in business and industries to support and complement the corridor, and investment in activities to utilise that infrastructure.

Key objective of a National Infrastructure Plan

The key objective of a National Infrastructure Plan is thus to ensure long term and effective co-ordination across agencies, regions and sectors and to reveal to all stakeholders and participants the interrelationships and interdependencies. To put it another way, an effective plan would ensure that various strategies adopted by autonomous decision-makers do not contradict each other, and that all parties have the information and the incentive to act in a manner that aligns their efforts.

3 Who should run the planning process?

A foundation question for a national infrastructure plan is how its preparation should be governed. There are two aspects to this question:

- Should there be any institutional separation between planning and political decision-making?
- Which entity should run the planning process?

Since infrastructure involves long-term decisions—perhaps 15 to 20 years—it would be desirable if infrastructure plans were able to survive changes of government without major changes to the plan’s goals and objectives. De-politicising infrastructure planning would improve credibility of long-term coordination between the Government agencies, regional bodies and the private sector. If the responsibility for the national plan rests

purely with the government of the day, it will inevitably be seen as a political document. Decision-makers in the public and private sectors would be influenced by the political risk around the document.

The political risk could be mitigated by the creating a degree of the institutional separation between the planning body and the government of the day. The Electricity Authority—with regard to the electricity transmission planning—provides one example of how such institutional separation could be implemented. While transmission planning is potentially contentious, the creation of an independent body to assess planning proposals against well-articulated criteria, and a high degree of community and stakeholder involvement in this assessment within a structured process, assist in creating credible, non-political plans. While the Electricity Authority does not plan transmission, its assessment process helps give stability and legitimacy to the submitted plans. The same logic—although not the same institutional arrangements—can be applied to the national infrastructure plan. In essence, a transparent, robust and public planning process could help put infrastructure planning outside the political cycle.

A second reason for some type of distance from the internal government processes is the tension and controversies that will arise during the planning process. A national infrastructure plan, if it is to be useful, cannot be a comfortable *status quo* document and thus must raise issues such as:

- Major changes to land use
- Potential development in environmentally sensitive areas
- New pricing strategies such as congestion charging for road users
- Privatisation or new funding arrangements such as public private partnerships

Governments of the day may be reluctant to raise these potentially controversial, but perhaps economically necessary issues. However, if raised by an independent body—and within a structured process—the debate around these issues would be less politically charged.

However, it is also essential to recognise that infrastructure is inherently political, and that no government would agree to be bound by the decisions of a technocratic body on issues which often go to the core of their political program. To reconcile the inherently political character of infrastructure and the benefits of de-politicising infrastructure planning, it may be useful to consider a process where an independent entity runs consultations and develops recommendations, with the government of the day responding to those recommendations as it sees fit.

Picking up on the example of the Electricity Authority, institutional independence could be established through legislation which embeds a set of public policy principles required to be demonstrated in the entity's performance of its functions. This should not be confused with the idea that the plan issued by such an agency should have legal standing (for example, by requiring that local spatial plans comply with the national plan). Rather, it would ensure that the planning process is framed by clear public policy principles.

If infrastructure planning remains within the internal government processes, then it is useful to consider which agency would be best placed to play the coordination function and to ensure that the document does not simply become a collation of the existing plans. Under the MMP system, there are good arguments for locating such an agency within the office of the Prime Minister, as it will inevitably need to cut across areas of ministerial responsibility.

4 Does good infrastructure flow from a good plan?

Before we look at how a national infrastructure plan might best achieve its key objectives, what is the relationship between the quality of such a plan and the quality of the resulting infrastructure? This question is particularly important for drawing the lessons for New Zealand from the infrastructure plans in other jurisdictions.

Institutional arrangements differ, and hence a national plan may play a very different role in different jurisdictions. Jurisdictions with better infrastructure did not necessarily achieve that from a superior plan. As formal national infrastructure plans are relatively new and as major infrastructure has a long gestation period, the results of previous plans may not yet be apparent. More importantly, other jurisdictions may have other coordination mechanisms. For example, in Australia, local governments are essentially subordinate to state governments, with all significant investments requiring resource consent at the state level.

Similarly, in assessing other planning exercises, it is important to understand the context for the exercise. For example, Infrastructure Australia was established for the specific purpose of allocating central government funding to state government projects. Hence, the planning process undertaken by Infrastructure Australia does not serve the purpose of identifying solutions or cutting across sectoral boundaries. Rather, the purpose is to respond to specific proposals emanating from the states, in the expectation that those proposals have already been developed in the context of a comprehensive state strategy.

National plans may also have to sit alongside individual infrastructure project ideas, which often have long and painful gestation periods. As examples;

- The Crossrail project in London was first proposed in 1989, construction started in 2009 and first trains will run in 2018—39 years after the initial proposal. Furthermore it may be perhaps another decade after commencement before it can be properly assessed as to whether it has been successful; and
- The Auckland Second Harbour Crossing has been mooted since the late 1960s when capacity additions were made to the existing crossing. Given that such a project, in addition to having a major impact on road traffic flows will also have a major impact on land use in terms of commercial, industrial and residential development it will be many years after construction for the full impact to be known.

A good national plan may reduce uncertainties around such major projects, but big debates about big infrastructure are inevitable.

This certainly suggests that the **processes** of developing plans are as important as the actual **outputs** of the plan. The planning processes focus attention on a discrete set of future strategies from a wide range of options. That focus on the future is as important as any specific infrastructure project.

5 How do we set goals for a national infrastructure plan?

The need to coordinate the actions of numerous autonomous decision-makers, without the executive authority to direct all of them (the Government can direct its own agencies, has some leverage over regional authorities, and can only suggest the direction for private participants) highlights the importance of anchoring the plan in something solid that all

parties can refer to. In practice, the only useful anchor is a set of measurable goals. Numerical targets mean that the plan can be used to hold decision-makers accountable.

The series of goals that enumerate the plan's long term vision need should relate to expected outputs and outcomes, rather than to a list of expected projects. These goals need to be tangible and quantifiable so that progress against the plan can be measured. As an example, a goal for rail infrastructure cannot be "increase retention proportion of freight carried by rail" but should be "increase proportion from X percent to Y percent by 2020". If we don't have a target how can we measure performance and progress?

The process of developing these goals is an important aspect of the plan. A shared and agreed set of goals across agencies, regional bodies and sectors will give the plan credibility and ensure support. The timescale of the goals is also important—if the plan is truly a long term vision, then the goals must also be long term, particularly given the long gestation period of physical infrastructure. We suggest a twenty year horizon is both sufficiently long term to allow for infrastructure development while being immediate enough to engage policy makers and stakeholders.

If we accept that we need some reasonably specific goals and targets for a national infrastructure plan then how do we set them in a manner that is economically efficient and represents the aspirations of stakeholders.

The problem that arises from such setting such goals and targets is twofold:

- How are these targets set in a way that is "economically efficient"—that is if the target is "increase use of public transport for journeys to work by 20 percent from x to y" then why 20 percent, not 15percent or 25 percent?
- How do we set these targets in such a way as to win acceptance from all stakeholders and thus give the plan credibility?

This is one of the more difficult aspects of a national infrastructure plan—setting the targets and goals that are challenging, yet realistic and visionary, yet economically sound. While informed by economics, this is more art than science.

The key here is the process of developing these goals and targets in consultation with all stakeholders so that they represent shared aspirations and common ground. Thus the process of creating the plan is as important as the contents of the plan. The process is an important communications and consultation opportunity to win the hearts and minds of all stakeholders. The plan needs buy in and ownership by all stakeholders.

Major infrastructure projects are often controversial and can be derailed by the NIMBY effect. A national plan is needed to show why individual projects are important and how they fit into the big picture vision—and the benefits from that vision. A national infrastructure plan plays a key role in slaying the sacred cows of infrastructure development. Measures such as toll roads, congestion charging and user pays principles for infrastructure need to be aired and explained as part of the process of developing the plan and dealt with in such a way that the community understands the issue and sees the benefits.

This suggests that a national infrastructure plan is, in a sense, useless unless it generates some controversy. Unless we already live in the economic nirvana, a planning process which does not knock some heads together and does not force some participants to re-examine their positions, which does not pose some difficult and unpopular questions, is unlikely to be anything more than a listing of the existing, un-coordinated positions. In fact, to some extent, the quality of the plan can be judged by the tensions generated in the process of its development.

With any planning exercise, there is always temptation to turn into a demonstration of good intentions to do something, rather than to become involved in the pain and suffering associated with genuine coordination.

6 How do we set strategies for a national infrastructure plan?

There is a gap between goals and targets and specific projects that needs to be filled by a series of strategies that outline the measures by which the target or goal should be achieved—that is how (broadly) are we going to achieve the targets and goals?

Thus if our target is “increase use of public transport for journeys to work by 20 percent from x to y” then we need to enumerate strategies that show how the goals are going to be achieved, so for this target the strategies could be:

- Increase housing density along existing public transport corridors
- Change land use to incentivise businesses with large scale employment to locate in areas better served by public transport
- Introduce urban congestion charging; and
- Build new rail lines and/or busways to areas not well served by public transport.

In this way the plan serves to prioritise individual projects and set them in context. This does not mean that the plan would consist of a list of committed projects. Rather, a useful plan would allow project developers, both in the public and private sectors, assess how their project fits into the national priorities. The national plan also gives a degree of approval and authority to individual plans of government agencies and regional bodies as well as providing a signal for complimentary action by the private sector.

As well as co-ordinating individual agency plans, a “whole of Government” national plan can clearly signal the Government’s priorities for economic development and provide the impetus for action.

Government agencies, regional bodies and the private sector are generally skilled at what we might call incremental planning—that is putting in place the individual projects that contribute to a cohesive whole.

Infrastructure and the fiscal constraint

It is the role of a national infrastructure plan to contribute the long term transformational thinking and context. To achieve this, it is important that the plan should not be driven by the current fiscal considerations and the fiscal constraints. A plan is more than a statement of what the Government can afford to do. It needs to be a statement of what needs to be done to meet the community’s goals, and an analysis of various funding options. Clearly, if neither the Government nor consumers jointly have the ability or willingness to pay, then the goals are unrealistic and should be revised. However, if the goals are realistic, then the plan should serve as a key tool to drive acceptance of different payment methods (such as congestion pricing) or force various stakeholders to re-assess their spending priorities.

In this context, the plan can also provide a vehicle for challenging the community’s preconceptions about the relevant roles of the public and private sectors. There are many examples in New Zealand’s history—such as telecommunications, airports—where transition to private provision resolved the apparently insoluble fiscal constraints.

The key point, again, is that unless the plan causes some controversy, and in some sense drives the decisions forward, rather than simply compiling together various historical decisions, it is unlikely to have any significance as a policy tool.

7 How do we ensure project deliverability?

One of the keys to the success of a national infrastructure plan is its credibility—much of which derives from the consultation and other stakeholder involvement in the process of developing the plan.

However, to further enhance credibility a plan needs to show, at a high level the essential elements of deliverability such as:

- The project sponsor—which agency is going to drive each individual project forward and take ownership and accountability. Most projects that fail do so because of lack of a high level sponsor and/or confused or contradictory objectives
- A funding source—this could be either from the long term Government capital budget or from a Public Private Partnership arrangement. In both cases the funding model needs to demonstrate that it is achievable within economic and fiscal constraints
- An agency or body which is responsible and has the mandate and technical capability to deliver, and
- The specific legislative and other Government actions needed to support the project.

8 What should be in a national infrastructure plan?

A national infrastructure thus should be a hierarchy of objectives, strategies and tactics, that is:

- Objective—what do we want to achieve?
- Strategies—how (broadly) are we going to achieve the objectives?
- Tactics—how (specifically i.e. which projects) are we going to do this and how do we ensure project delivery?
- Measures—how will we measure progress towards the objectives?

The process of developing the plan, involving all stakeholders is as important as the output of the plan.

There needs to be clarity about actions and responsibilities. For some aspects of the plan, the Government may have a responsibility to deliver, for other aspects the Government may play a facilitating role. For example, a national broadband network may largely be delivered by the private sector within a regulatory framework provided by the Government. Thus the framework is “infrastructure” and the plan needs to establish both the principles of that framework and the timetable for its implementation.

9 What do other jurisdictions do?

What can we learn from the plans in Australia states, Canada and the United Kingdom? How do our expectations of what a good plan would look like compare to what we observe in other jurisdictions?

We reviewed:

- Australian Capital Territory Government Infrastructure Plan 2010
- Draft Connecting SEQ 2031 Transport Infrastructure Plan 2010
- Building Canada: Modern Infrastructure for a Strong Canada 2007
- New South Wales State Plan 2010
- Strategic Infrastructure Plan for South Australia 2005/06 – 2014/15
- Tasmanian State Infrastructure Strategy 2010
- United Kingdom National Infrastructure Plan 2010
- The Victorian Transport Plan 2008

Not all of these plans are complete infrastructure plans for a jurisdiction. Some have only a transport focus, others have a regional focus. However, even those with a more limited scope provide useful insights. A transport plan, for example, is of interest in the way in which it deals with the integration of passenger and freight transport and across modes such as rail and road.

We evaluated these plans against the following criteria:

- Does the plan have quantifiable goals and targets and a process for measuring progress against those goals and targets?
- To what extent does the process of developing the plan involve stakeholder consultation—what is the degree of community ownership of the plan?
- Does the plan demonstrate how those goals and targets will be achieved through a hierarchy of strategies, tactics and measures?
- Is there clarity about actions and responsibilities for all aspects of the delivery of the plan?

We include our detailed evaluations in the Appendix to this report. In general, we found that:

- Most plans tend to express their goals and targets in vague and unfocussed terms—largely aspirational statements. Only two (NSW State Plan and the SEQ Transport Plan) have clear, quantifiable targets. Some plans attempt to identify existing infrastructure gaps and problems. This can be useful as part of the progression from where we are now to where we want to be. But it can show an excessive focus on symptoms and thus lack of vision
- Consultation and stakeholder involvement is generally a feature of most plans with many having extensive “grass roots” community involvement rather than just key business and industry and expert stakeholders
- Few plans have a clear hierarchy leading from quantifiable goals to strategies, tactics with specific projects and initiatives at the bottom level. Most plans jump straight from aspirational to lists of specific projects, and
- Clarity of responsibilities and actions is mixed. Many plans are effectively government policy statements and as such the Government generally stands behind them. Some plans do specify specific actions and responsibilities down to specific government agencies and departments. Very few build the right linkages to the private sector in terms of outlining how private sector

investment will complement public investment in achieving the goals of the plan.

10 Policy Lessons

The absence of an “off-the-shelf” international model should not discourage us. This is not the first time that New Zealand has an opportunity for institutional innovation. However, the key elements observed in other jurisdictions confirm the principles discussed at the start of this paper:

The key lesson which emerges from perusing infrastructure plans in other jurisdictions similar to New Zealand is that a plan needs to start with a very clear vision of what the role of the Government is, and why the plan is being put together. This is relatively simple, where the Government is at the core of the program (such as Victoria state transport), and so the plan is about the Government’s actions. It becomes much more complicated when the plan is trying to coral actions of numerous decision-makers. A plan needs to be clear in whom it is trying to influence and how.

In this context, Government leadership could come in two forms:

- The Government could credibly commit itself to a very specific set of actions/projects which would influence other decision-makers, and draw them into desired actions
- The Government could step on some toes and make statements about what other parties should and should not be doing, even if it has no power to direct them. The more credible the Government is with respect to its own actions, the more influential it will be with the autonomous decision-makers.

In both respects, the credibility of the Government’s own actions, and the Government’s ability to exercise leadership through its influence on others depend on the credibility and the perceived seriousness of the planning process:

- **Numbers matter.** A plan with clear numerical goals will be more credible, in part precisely because it is difficult and controversial to commit to numbers. The presence of specific numerical goals means that the planning process had forced some difficult decisions, has survived the controversy, and can potentially be held accountable. This is what makes the output credible, and hence, worth following. Some targets may be easier to quantify than others (e.g. how do we measure congestion in the urban centres?). However, the difficulty in quantification is a poor excuse. Infrastructure stakeholders are sufficiently sophisticated to understand that some numbers are harder to track than others, but they also understand that an absence of an attempt at quantification is generally an excuse for avoiding accountability; and
- **Tension matters.** A plan which elevates everything to such level of generality that everyone can easily agree with it is not a plan. Who could disagree with the New Zealand needing to have a reliable, responsive and sustainable transport system? A plan will have influence only if it advances thinking and lays bare the difficult trade-offs that have to be made. This has important implications for the planning process. A national infrastructure plan cannot be a simple compendium of constituent agency and regional plans. It needs to, and more importantly, it needs to be seen to be bringing various participants together.

The credibility of the planning process is critically important for the business community. Businesses are constantly making investment decisions on the basis of various bits of information about infrastructure: the current state of infrastructure, numerous plans and project ideas, local and central government statements. To the extent that these bits of information are uncertain or contradictory, businesses will either reduce their investment due to perceived risk, or will mis-invest, reducing New Zealand's growth potential.

From the business point of view, the success of the plan can be measured in terms of the improved quality of information about the future infrastructure, so that investment is able to increase, and there is less risk of stranded assets.

A Case Study—Ruakura

A good example of the inter-play between the Government and commercial interests is the proposal by Tainui Group Holdings (TGH) to develop an inland port and an industrial/commercial centre at the Ruakura site in Hamilton (Castalia is advising TGH on this development).

While Ruakura is a private commercial development, its potential scale would lead to significant economic, social and environmental effects which are of interest to local and national Governments. The emergence of Ruakura as the core growth location for the Golden Triangle may shape the broad pattern of economic development in the region. Hence, Government at all levels (national and local) has an interest in what happens in Ruakura.

At the same time, various government actions will influence how and to what extent the region takes advantage of the economic development opportunities potentially created by the Ruakura development. It is obvious that infrastructure investments and regulatory decisions by both local and national governments have far reaching consequences for private developments such as Ruakura. However, it is equally important to realise that commercial developments of Ruakura's potential scale may have a profound effect on the effectiveness and outcomes from public sector policies.

There is inter-connectedness at all levels: rail investment decisions influence ports, roads investments feed into requirements for water and power infrastructure and so on. The National Infrastructure Plan provides an opportunity to coordinate between significant private developments and local and central government plans. Such coordination does not mean commercial endorsement or any form of support from the Government. However, the government can act as a catalyst or can dissipate the private development potential.

A credible national plan, anchored in numerical goals, would provide investors, such as TGH, with a clear framework for making their own decisions. It will also provide the Government with a framework for adjusting its own plans in response to private developments.

For example, progress by the local and national governments in timely delivery of the essential infrastructure around Ruakura—such as water infrastructure and the completion of the Waikato Expressway—would send a strong signal to businesses considering locating in Ruakura. This will reduce the commercial risks associated with the project, but will also accelerate the achievement of the public benefits.

Both local and national governments may also be able to limit public investment in infrastructure and facilities that would result in an ad-hoc less efficient pattern of future economic growth and development. This too aligns commercial and public policy interests.

In developing a national plan, it is useful to consider whether the process through which it is put together is able to produce a document that matters to an investor such as TGH, and in turn one that government agencies are able to respond appropriately to significant private projects, such as this. If neither occurs, then the plan is little more than a promotional brochure for the Government.

Appendix A: Infrastructure Plans in Other Jurisdictions

A.1 Australian Capital Territory Government Infrastructure Plan 2010

Background and timescale

The “ACT Government Infrastructure Plan 2010” was released in May 2010, essentially as part of the Government’s annual budget process. However while it does contain the details of the 2010-11 Budget’s infrastructure spending program, it does set this annual program in the context of infrastructure priorities over the next ten years.

It sets out the context, challenges and key drivers of infrastructure demand over that period for the Territory. It also discusses infrastructure priorities for the next ten years in the areas of:

- Health
- Education and Training
- Transport
- Housing and Community Services
- Justice and Community Safety
- Municipal Services
- Land Development and Planning
- Water
- Energy; and
- Culture and the Arts

Quantified Goals and Targets?

In general, the Plan does not contain specific and quantified goals in any of the key priority areas that it identifies. It does contain forecast of future demand for infrastructure, but these are more in the nature of projections on a business as usual (BAU) basis rather than targets that will be achieved by implementation of strategies.

In terms of goals and targets, they are expressed in terms of:

“provide additional (hospital) beds”

“improve workforce participation rates”

“reduce traffic congestion”

“a more co-coordinated approach to community infrastructure”

Developed through consultation process?

While the Plan is prepared by the Government and is essentially an “add on” to the annual budget process, there was some consultation on the development of the Plan. The Government released a discussion paper in September 2008 to guide the development of the Plan. The Plan states that it has been informed by the views of the community and industry, through the Government’s budget consultation strategy, and also through a

series of high level roundtables. Future versions of the Plan are proposed to be informed by six-monthly industry and community roundtable discussions.

Hierarchy of strategies tactics and measures for achievement?

As the goals and targets are vaguely defined, the Plan moves quickly from these goals and targets to specific lists of projects. There is no intermediate step—for example under the Transport priority the goal of “reducing traffic congestion” is achieved by a list of specific road and bus projects, without any intermediate step that demonstrates a holistic and integrated approach. Reducing traffic congestion, for example, could involve increasing population density along existing public transport corridors as well as specific road and bus enhancement projects.

Clarity of responsibilities and actions?

As the Plan is largely an adjunct to the Government’s annual budgeting process, the responsibility for actions is clearly sheeted home to the Government, its department and agencies. The short term projects, in particular are expressed as Government commitments.

The Plan uses consistent language to nuance its commitments to specific projects in the short, medium and long term, e.g.:

“In the next two years, the Government will deliver...”

“In the next five years, the Government expects to complete....”

“In the next ten years, the Government will explore....”

The Plan does not contain much in the way of a call for complementary private sector action—partly because the bulk of the infrastructure in the ACT traditionally has been provided by the Government and partly because the ACT economy does not have an extensive private sector industrial or commercial base being mainly service industry orientated.

A.2 Draft Connecting SEQ 2031

Background and timescale

The “Connecting SEQ 2031: An Integrated Regional Transport Plan for South East Queensland” was prepared by Queensland Department of Transport and Main Roads. The draft Plan was released in November, 2010.

The draft Connecting SEQ 2031 has been developed as the guiding transport planning and policy document to support the desired outcomes of the South East Queensland Regional Plan 2009-2031. It will deliver:

- A master plan to address the critical issue of transport for the region's ongoing success
- A response to the Queensland Growth Summit providing a framework for providing for the growth within the region
- A central document that consolidates the transport-related actions from many of the Queensland Government's studies and policies, and
- Basis for prioritising funding to support the numerous transport and land use plans that have been developed within government.

The vision of the draft Connecting SEQ 2031 is a transport system that: ‘Supports the lifestyle enjoyed by residents and visitors, enhances the state’s economic vitality and protects the natural environment’.

Quantified Goals and Targets?

Within its mandate of the transport sector, the Plan does have ambitious and quantifiable targets and aims to fundamentally change current transport patterns by:

- doubling the share of public transport from 7 percent to 14 percent of all trips
- doubling the share of active transport (such as walking or cycling) from 10 percent to 20 percent of all trips, and
- reducing the share of trips taken in private motor vehicles from 83 percent to 66 percent.

The Plan also contains the goal of “creating high density communities where people can get to everything they need in 15 minutes”.

Developed through consultation process?

The Plan was developed in response to the Queensland Growth Management Summit held in March 2010. The Summit was attended by ten State Government Ministers and mayors from cities and towns throughout Queensland as well as members of the public and international, Australian and local experts and leaders in planning, development, infrastructure, sustainability, industry and economics to debate the pros and cons of population growth and to develop a shared vision for Queensland’s future. Members of the public were selected at random from those who registered an interest to attend in early March 2010.

While this indicates a substantial and meaningful consultation process, the draft Plan itself was not the subject of the Summit but was developed as a response. The Plan itself is a draft and was released for public comment. There does not appear to have been a particularly comprehensive consultation process for the draft—just release publicity and a website for comment. Public consultation on the draft plan closed on 26 November 2010. The department is now reviewing the feedback received.

Hierarchy of strategies, tactics and measures for achievement?

The draft Plan does contain a clear and integrated transport plan centred on a modernised and expanded rail network supported by bus services providing feeder services and crucial urban links.

The draft Plan also states that land use policies will be coordinated with strategic transport investment to support a series of 15-minute neighbourhoods connected by public transport; and reliable freight and heavy vehicle access to the priority freight routes and will thus foster transport and land use integration for development areas.

Thus it does contain a credible mixture of strategies and tactics for achievement, although none of these are directly linked to the goals—the draft Plan does not suggest how much each measure will contribute to the goal.

Clarity of responsibilities and actions?

Part E of the draft Plan “Putting the plan into action” makes a number of points about the draft plan:

- many of the projects are conceptual and have not been the subject of detailed cost benefit analysis; and

- the draft plan is not fully funded.

Nether the less, the draft Plan does set out principles and processes for determining how funding is prioritised, firstly across the various transport modes and other measures and secondly within each mode or measure.

The draft Plan clearly identifies the Transport and Main Roads Department as chiefly accountable for co-ordinating delivery of the draft Plan measures. It does recognise the efficiencies of the Department partnering with other state government agencies, local government, the Commonwealth Government and the private sector to plan and deliver key actions.

A.3 Building Canada: Modern Infrastructure for a Strong Canada 2007

Background and timescale

The “Building Canada: Modern Infrastructure for a Strong Canada” report was released in 2007 as part of the Government’s long term economic plan called “Advantage Canada”. The goal of the “Infrastructure Advantage” is to “ensure the seamless flow of people, goods and services”.

The Plan is premised on the importance of infrastructure to Canada’s economic well being and the realisation that much of their public infrastructure is nearing the end of its expected lifespan and needs upgrading or replacing. Without significant investment in the country’s critical physical assets, there is a risk that Canada will fall behind in the global economy and face challenges in maintaining a high quality of life for all Canadians.

The Plan contains a Government commitment of \$33 billion in funding over a seven year period from 2007 to 2014 to develop infrastructure that will support a stronger economy, a cleaner environment and more prosperous communities.

Quantified Goals and Targets?

The Building Canada Plan does not contain specific and quantified goals. It has:

- **A vision:** Building a stronger, safer and better Canada through modern first-class public infrastructure
- **Themes:**
 - Growing Economy
 - Clean Environment
 - Strong and Prosperous Communities
- **Objectives that relate to the themes:**
 - Support economic growth and productivity, improve Canada’s competitiveness and facilitate trade
 - Promote sustainable growth and improve the quality of Canada’s air, water and land
 - Promote strong, competitive and sustainable Canadian communities

None of these objectives are in anyway quantified or measurable directly or indirectly.

Developed through consultation process?

The Building Canada Plan is a Government initiative and does not appear to have involved significant public consultation. It is more in the nature of a Government policy

announcement—of course much Government policy is in response to expressions of community interest and concern. Furthermore as a clear policy initiative, accountability for the Plan rests with the Government.

Hierarchy of strategies tactics and measures for achievement?

The goals and targets of the Building Canada Plan are vaguely defined and the strategies, tactics and measures to achieve the Plan are equally ill defined. Much of the Plan uses language like “reduce”, “improve”, “expand”, “optimise”, “minimize” and the like and in contrast with many other plans, the Building Canada Plan contains no specific projects or initiatives.

To be fair, this is partly as a result of the nature of the Plan which is essentially a funding pool for Canadian provinces, territories and municipalities to bid for funding for their specific projects. The Plan outlines the Government’s priorities and to some extent the evaluation framework for such bids.

Furthermore, the Plan is more than just funding, committing the Government to work with the provinces, territories and municipalities to promote knowledge, research, best practices, long term planning and capacity building.

Clarity of responsibilities and actions?

The nature of this plan—broadly as a funding mechanism—makes it necessarily weak on implementation detail and particularly on responsibilities and actions.

The Plan commits the Government to work in partnership with the provinces, territories and municipalities and provides a vision to guide infrastructure investment within a framework that is coherent and strategic.

We also note that the split in responsibilities between the central Government and the regional governments is largely responsible for the lack of focus on implementation system. The Canadian federal system, similar to the Australian system is one where the central government has the funds and the regional governments have the service delivery responsibilities.

A.4 New South Wales State Plan 2010

Background and timescale

The “NSW State Plan: Investing in a Better Future” was released 2010 is a revised version of the original State Plan developed and released in 2006.

The State Plan is the Government response to the challenges faced by the State and sets our clear priorities to guide government decision making and resource allocation.

It is essentially independent of the annual State Budget process, although as we will discuss later there are strong linkages between the Plan and the objectives and programs of NSW Government departments and agencies—but it is the Plan that drives budget decisions, not the reverse.

The Plan outlines seven key priority areas for the State as:

- Better Transport and Liveable Cities
- Supporting Business and Jobs
- Clever State
- Healthy Communities
- Green State

- Stronger Communities
- Keeping People Safe

The Plan has a ten year timeframe in relation to the original 2006 plan—the targets thus are as at 2016.

Quantified Goals and Targets?

The Plan contains very specific and detailed goals targets and measures in each of the seven key priority areas. Examples of the targets, picked from each of the seven priority areas, are:

- **Improve Road Safety:** reduce fatalities to 4.9 per 100,000 population by 2016
- **Maintain and Invest in Infrastructure:** Maintain our (Government) average annual capital expenditure growth of 4.6 percent nominal to 2015-16
- **Engage students in learning for longer:** By 2020, 90 percent of 20-24 year old in NSW will have achieved Year 12 or a Certificate III qualification or above
- **Promote Healthy Lifestyles:** Reduce the percentage of children who are overweight and obese to 25 percent by 2010 and 22 percent by 2016
- **Secure Sustainable Supplies of Water:** Increase water recycling from 15 billion litres per year in 2005 to 70 billion litres per year by 2015
- **Reduce the number of NSW people who are homeless:** A 7 percent reduction in the overall level of homelessness in NSW by 2013
- **Reduce Rates of Crime:** Reduce property crime by 15 percent by 2016

The key to all of these quantified tasks and measures is that each measure is precisely defined and the source nominated so that achievement is easily ascertained. The annual reports of all Government agencies contain a section detailing agency performance against the State Plan measures.

Developed through consultation process?

The original State Plan was released as a draft in 2006 and called for submissions from the community. A series of consultation forums involving community leaders and randomly selected members of the public were held. The feedback from the forums was documented and released and used to refine the original plan.

In 2010, the State Plan was revised following and extensive consultation program that included:

- community meetings held around NSW, hosted by the Premier and Ministers, and attended by 1,600 people representative of their community and community leaders
- a State Plan website visited by more than 2,000 citizens who were able to participate in independently moderated forums
- a Stakeholder Forum, hosted by the Premier and all the Directors-General of the 13 Government super agencies, and attended by more than 100 of the State's peak groups, and
- consultation with young people and women's groups.

By any measure, this represents a substantive consultation process. About 75 percent of the priorities and targets from the 2006 Plan have been retained in the 2010 revision with changes to:

- update priorities
- strengthen targets; and
- drive local delivery.

Hierarchy of strategies tactics and measures for achievement?

For each of the seven priority areas, there are a number of specific targets and detailed measures for each of these targets. The Plan then outlines projects and initiatives that will contribute to the attainment of the target.

The projects and initiatives are outlined at a broad conceptual measure. This is different to other plans that are tied more closely to the jurisdictional annual budgeting process where the nominated projects tend to be more detailed. In effect, the Plan gives “early warning” to stakeholders of projects and measures before they are planned in great detail.

Clarity of responsibilities and actions?

A key feature of the NSW State Plan is that it provides a strategic framework for a series of detailed delivery plans for each of the seven priority areas. In turn these delivery plans and the State Plan itself into a key component of the performance monitoring of all government departments and agencies. The annual budgeting process for departments and agencies shows the allocation of funds to initiatives and the contribution of these outcomes to the State Plan.

Another very strong linkage is that the Plan, for each measure, nominates both the Minister and agency Director General responsible for that measure. Even the individual performance review statements for each Director General in the agencies’ annual report addresses their performance against the achievement of the State Plan measures.

A.5 Strategic Infrastructure Plan for South Australia 2005/06 – 2014/15

Background and timescale

The need for this plan was recognised in South Australia’s Strategic Plan (SASP). Released in March 2004, the SASP called for the identification of infrastructure priorities over five and 10-year time frames to focus both government and business investment.

The Strategic Infrastructure Plan for South Australia is thus a delivery plan for the SASP where the SASP is an overall plan, in the style of the NSW State Plan (Section **Error! Reference source not found.**8.4).

The principal purpose of the Infrastructure Plan for South Australia is to guide new infrastructure investment by government and the private sector over the next five and 10 years and improve the management and use of the state’s existing infrastructure assets.

The plan incorporates four broad strategies.

1. To coordinate infrastructure planning and construction across the state
2. To pursue more efficient and competitive infrastructure systems
3. To pursue and promote sustainable development; and
4. to meet future demands in a timely and innovative manner.

Quantified Goals and Targets?

The Infrastructure Plan picks up very specific targets and measures from the higher level SASP.

In some cases the target from the higher level plan is not clearly linked to the Infrastructure Plan—for example the SASP target to “Treble the value of South Australia’s export income to \$25 billion by 2013” is only loosely connected to the scope of the Infrastructure Plan.

In other cases, the measure is much more relevant—for example the SASP target to “Double the use of public transport to 10 percent of weekday travel by 2018. In this case there is a clear linkage between the infrastructure initiative and the target.

Developed through consultation process?

While the development of the Infrastructure Plan itself does not appear to have been as a result of a consultation and stakeholder engagement process, the SASP is the result of such a process. Both for the original SASP in 2004 and the update in 2007 were prepared after a comprehensive, whole-of-state community engagement program. The goal of the engagement process was to “well and truly include the views of South Australia’s many communities, including communities of interest”.

Hierarchy of strategies tactics and measures for achievement?

For each of the key priority areas for infrastructure, the Plan sets out:

- where we are now
- where we want to be in 2015; and
- how will we get.

However, one of the consequences of the use of high level targets from the SASP is that the Infrastructure Plan targets are either high level, not directly relevant or both. Partly as a result of this, the “where do we want to be in 2015” sections are vague and ill defined. There is much language along the lines of:

“water will be allocated towards uses of the greatest benefit to the state”

“More emphasis will be placed on maintaining existing road assets rather than extending the network”

“A shift to rail transport for passenger and freight movements will be encouraged where it offers environmental and economic benefits”

“The Government’s capacity to respond to the needs of homeless people will also be improved through the development of increased transitional, crisis and supported accommodation options”

The Infrastructure Plan does establish conceptual level projects and initiatives that support the attainment of these goals.

Clarity of responsibilities and actions?

The Infrastructure Plan outlines a planning and delivery framework of the following steps:

1. Strategic Analysis & Identification of Infrastructure Need
2. Outline of Case for Change and Project Scoping
3. Project Planning and Substantiation

4. Funding Method & Resource Allocation
5. Delivery of Project

It does allocate responsibility for actions, but only at a very high level—State Government, local government or the private sector.

A.6 Tasmanian Infrastructure Strategy 2010

Background and timescale

The 'Tasmania Infrastructure Strategy' was released in February 2010. The Strategy seeks to coordinate effort across the major economic sectors of transport, water, energy and digital infrastructure. While the Strategy focuses on these sectors, many of the initiatives will have relevance across all infrastructure sectors. Importantly, the Strategy also recognises the essential role land use planning plays in the location and provision of infrastructure.

The strategy seeks to:

- have a long-term vision for infrastructure in Tasmania
- challenge our approach to the way we plan, deliver and maintain infrastructure in Tasmania
- embrace transformational change—in many cases incremental change for Tasmania is no longer acceptable
- make infrastructure decisions based on sound evidence and analysis
- provide infrastructure on a sustainable basis; and
- deliver infrastructure with a commercial focus.

The Strategy outlines the approach in a ten year time horizon and categorises initiatives into those that are delivered in 0 to 3 years; 3 to 5 years or 5 to 10 years.

Quantified Goals and Targets?

In general, the Strategy does not contain specific and quantified goals in any of the key areas of transport, water, energy and digital infrastructure. The Strategy describes its approach in ten years in terms of "vision characteristics" such as:

"co-ordinated land use and infrastructure planning"

"water delivered to its most productive use"

"energy efficiency and conservation measures in place"

"High digital literacy and participation across community, business and Government makes digital infrastructure viable"

There is no quantification of these aspirational statements.

Developed through consultation process?

The Strategy was developed through a two year consultation and engagement process. To assist the Strategy's development, the Government sought extensive input from business, community leaders, local government, transport, telecommunications, water, energy and other key stakeholders on the broader issues of importance. There appears to have been no specific process for broader community involvement.

Hierarchy of strategies tactics and measures for achievement?

The Strategy at a base level has a mix of strategies, tactics, initiatives and specific projects—all at different levels as it moves from the aspirational visions to key deliverables and outputs.

As an example, in the transport area, the Strategy proposes the following as key activities:

- implement commercial models to deliver roads
- review the integrated regional transport plan; and
- complete the Bagdad bypass.

Here we have a strategy, a tactic and a specific project all included in the same list of key activities for the Strategy.

Clarity of responsibilities and actions?

There are no clear responsibilities for actions assigned in the Strategy. The Strategy does highlight governance issues—for example under water it identifies the establishment of urban water and sewerage corporations but it is not clearly stated that these bodies will be responsible for all of the actions outlined in this area.

Implicitly the Government in general stands behind the Strategy and it is seen as largely a “general government” responsibility with no specific agency assigned to take action—although it is reasonably obvious in most cases which agency would take the lead role.

A.7 United Kingdom National Infrastructure Plan 2010

Background and timescale

The United Kingdom National Infrastructure Plan 2010 was released in October 2010.

The Plan focuses on economic infrastructure: the networks and systems in energy, transport, digital communication, flood protection, water and waste management. These are all critical to support economic growth through the expansion of private sector businesses across all regions and industries, to enable competitiveness and to improve the quality of life of everyone in the UK. Government’s key role is to specify what infrastructure is needed, to identify the key barriers to achieving that investment and to mobilise the resources, both public and private, to make it happen.

The Plan has no specific timetable and in many respects its key goal is to outline Government initiatives and actions that will facilitate the development of efficient and appropriate infrastructure—a new approach to infrastructure planning and funding. This Plan has more of a process focus than other similar plans.

Quantified Goals and Targets?

In general, the Plan does not contain specific and quantified goals in any of the key areas of priority. To some extent this arises because the Plan contains a heavy emphasis of the processes and legislative, regulatory and funding frameworks for infrastructure.

However, the goals are couched in vague generalisations: e.g. infrastructure than is:

- *“Integrated, reliable, secure and resilient*
- *Supports sustainable and balanced economic growth and competitiveness*
- *Ensures that the overall programme supports the delivery of reduced UK greenhouse gas emissions and wider environmental objectives*

- *Achieves an affordable mix of public and private sector investment co-ordinated land use and infrastructure planning*

Under the priority areas such as energy infrastructure the goals are also not quantified:

“A step change in energy efficiency”

“increased security of supply”

“maximise use of existing public sector assets”

Developed through consultation process?

This is a key Government initiative and is a response to what is seen as past failures in infrastructure investment leading to infrastructure that is aging with no clear plan for future development. Thus there appears to have been little stakeholder consultation and engagement on the Plan itself, although the issues have been a matter for public debate for some time.

Hierarchy of strategies tactics and measures for achievement?

Under each of the priority areas of energy, transport, digital communications, flood management, water and waste, and intellectual capital the Plan sets out programmes and methods by which the Plan goals are to be achieved.

These programmes and methods are usually at a high level but do incorporate major specific projects such as “a new generation of nuclear power stations”, “the construction of Crossrail” and “hold an auction in 2011 for 800MHz spectrum” and the like.

The linkage between the high level goals, the programmes and methods is sound but the Plan does tend to deal in generalisations.

Clarity of responsibilities and actions?

As the Plan is a Government initiative, the responsibility for action is clearly the Government and is not generally broken down into specific agencies or departments. The Plan discusses the role of the private sector, but does not contain any specific and clear private sector involvement. Short term actions—those occurring in 2011—are generally specific.

A.8 The Victorian Transport Plan 2008

Background and timescale

The Victoria Transport Plan was released in 2008 and was the end point of a process that began with the “Investing in Victoria Report” by Sir Rod Eddington.

The Plan revolves around six priorities:

- Using transport investment to change the shape of Victoria to make jobs and services more accessible
- Linking regional, rural and metropolitan Victoria so all parts of the State share in the benefits of population and economic growth
- Creating a Metro System by improving the capacity, frequency, reliability and safety of public transport
- Linking our communities by closing gaps, reducing congestion and improving safety on our roads
- Lowering our carbon footprint from transport, and

- Strengthening Victoria's and Australia's economy by supporting freight, industrial growth and new jobs.

The Plan sets strategic directions for the period to 2020 and beyond.

Quantified Goals and Targets?

In general, the Plan does not contain specific and quantified goals in any of the key priority areas. The goals and targets are specified in terms such as:

“Our long-term vision is to develop our cities, towns and suburbs in a way that reduces the need to travel long distances because there are more opportunities closer to where we live. The way we move the goods we consume will be far more efficient with dedicated links to concentrate freight flows and encourage economic growth. The Victorian Transport Plan is the coordinated investment we need for a prosperous, liveable and sustainable Victoria.”

Developed through consultation process?

The Plan, while prepared by the Government as a statement of policy has been developed with substantial public involvement, using expert advice from Sir Rod Eddington's review into improving Melbourne's east west links..

Hierarchy of strategies tactics and measures for achievement?

A key focus of the Plan is to outline a \$38 billion program of specific projects that will be undertaken by the Government. As such, the Plan moves very quickly from high level and unquantified goals to list of projects that may well be worthy but do not link to any strategies and tactics for achieving that largely unspecified goal.

Clarity of responsibilities and actions?

As the Plan is a Government initiative, the responsibility for action is clearly the Government and is not generally broken down into specific agencies or departments. The Plan is silent on any private sector role or linkages between public and private investment in transport infrastructure.