

## Structural reform of New Zealand's transport system

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### Abstract:

Since 1983, the legislative and administrative structure of New Zealand's transport system has undergone major reform.

Quantitative controls on access to most sectors of the transport industry have been removed, in favour of unrestricted entry subject to appropriate quality controls and continued safety audit systems. Central and locally owned transport operations have been extensively corporatised on commercial principles.

This paper examines the basic principles of New Zealand's reforms. Achievements to date are assessed, and likely future developments suggested.

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## Introduction

Since 1983, New Zealand's transport system has undergone the most extensive structural reform in the country's history. The revolution - for this is the only word that properly describes the extent of change - has deeply affected every person and organisation involved in transport.

This revolution is now well advanced but not complete - if revolutions ever are complete - and a detailed evaluation must await some future period of quiet contemplation. Seven years on, participants can only survey what has been done, why it was done, what remains to be done, and to attempt a preliminary partial evaluation of the outcome.

Transport reform has been part of a fundamental restructuring of the New Zealand economy. Change on this scale generates impassioned debate, and anyone with at least a passing familiarity with New Zealand will recognise the emotional loading of terms such as "deregulation", "user pays", "asset sales", "Rogernomics", "privatisation" and "market forces".

Terms such as these have been avoided in the present review, unless they describe a clearly defined event, and can be used without any implied commentary.

This survey deals with New Zealand's domestic transport system, and does not directly deal with aviation and maritime matters that involve international matters that are largely governed by agreements with other nations, where change is inevitably slower than in a single jurisdiction.

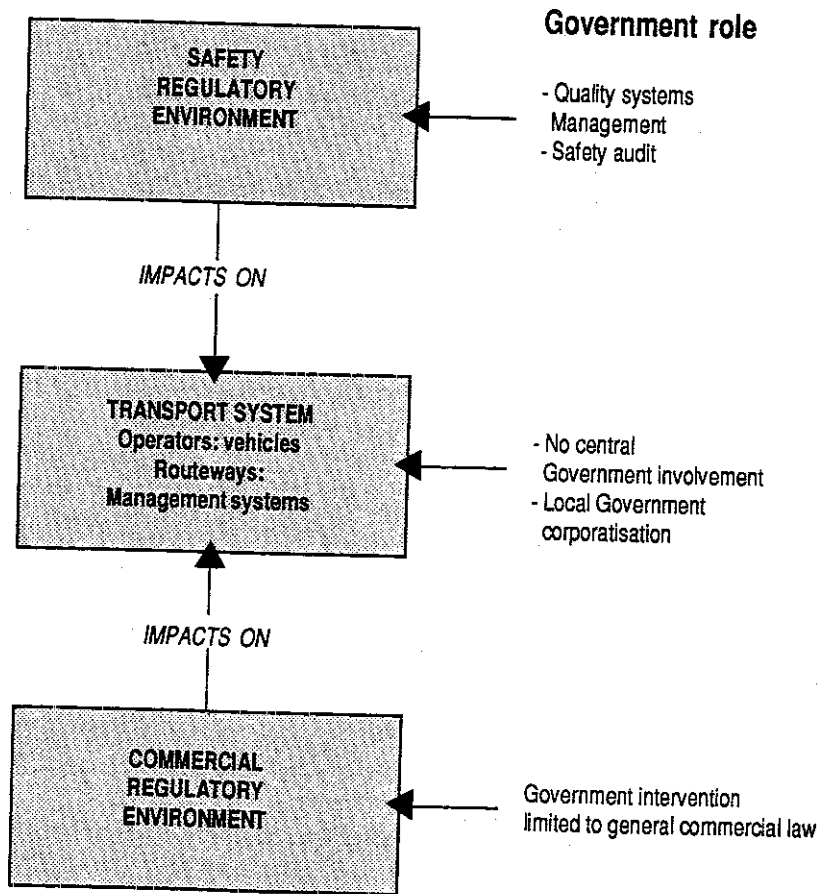
## The nature of change

New Zealand's recent extensive structural reforms have as their primary goal the maximisation of economic efficiency in every sector. This, in turn, is seen as a means of achieving long term economic growth, from both internal and export led sources.

Within this general policy goal, transport reform has centred on seeking to remove restrictions on the introduction of improved transport services and reduce transport costs through the fundamental restructuring of the public and private transport sectors. New Zealand's geographical shape and location mean that any reduction in transport costs is perceived as ultimately translating to improvements in competitive trade advantage and in private consumption.

The search for cost effectiveness has been based on a simple structural model of the transport sector (Figure 1). Overall transport costs are generated in the operating environment, which in turn is influenced by two distinct legislative and administrative regimes that create commercial and safety regulation structures. It is the fundamental reshaping of these two regimes that has formed the core of the transport revolution.

# Figure 1 Transport Environments



### NZ transport systems in 1982

As a brief indication of the depth of change in New Zealand's transport structures, it is instructive to look back at the nature of that system in 1982 (Figure 2).

Government intervention in the commercial environment, either directly or through quasi independent authorities, controlled the number of participants in each sector, regulated competition and, in many cases, directly determined rates of return on capital employed.

In the operating environment, the public sector included the major airline, the two largest shipping operations, the largest land transport operators in both passengers and freight, as well as virtually all ports and airports.

The safety environment in 1982 was essentially conceived around the principle of Government regulation, inspection and, where appropriate, subsequent penalty action.

With only cosmetic change, the concepts behind the transport structures of 1982 were little different from those of the 1930's or the 1950's. Some of the structure was even older - much of the legislation governing railways, for example, dated back to 1877.

### Commercial environment philosophy

Current Government policy towards the commercial environment affecting transport operators has been elegantly straightforward. Legislation governing the supply and pricing of transport services has been repealed. Entry to, and exit from, the major sectors of the transport industry are now matters for the individual commercial judgement of operators, as are decisions relating to charging policies, desirable return on investment and appropriate spheres of operation.

This simple approach to transport supply regulation developed from a concern that centralised bureaucratic control had created significant diffusion of managerial responsibility in the transport sector. In this view, a commercial environment in which competition, prices and even return on capital are regulated, will inherently lead to technological and structural rigidity, and restrained innovation. Removing these controls should maximise the effectiveness of resource use and encourage innovation, while transferring key areas of managerial responsibility from central bureaucracy to operators. The net effect of this approach should be, of course, to increase competition and thus the downward pressure on transport sector prices.

Business regulation of the transport industry is now confined to the Commerce Commission, which is the general regulatory body for all commercial matters relating to restraint of trade. The Ministry of Consumer Affairs also has a general interest in consumer protection issues, although the creation of the Passenger Complaints Board in 1989 can be seen to represent an awareness of

public concern for the protection of particular consumer interests in land passenger transport.

#### Commercial policy implementation

The removal of quantity controls in the transport industry began in 1983 when the long distance monopoly of New Zealand Railways for most types of freight was removed over a three year period, allowing road transport to directly compete for the main long distance freight markets.

In 1989, the Transport Services Licensing Act followed this trend to its logical conclusion. Quantity controls on entry to the taxi industry were removed, as was Government intervention in price setting. The long distance and urban passenger transport industry will have unrestricted entry from July 1991. Subsidised passenger services will have a system of protective registration from that date, administered by Regional Councils. Publicly funded passenger services run under contract to Regional Councils will be subject to competitive tendering from the same date. School bus services have been subject to such tendering since 1986.

Operator licences for all sectors of the land transport industry are now issued on the "fit and proper person" principle, and are unrestricted as to number. All licences are now issued by the Ministry of Transport, rather than by independent Transport Licensing Authorities, those residual passenger transport functions will end in 1991. No financial information is required of any licence applicant.

Domestic air transport licensing has passed through a similar process. Domestic quantity route licensing effectively ceased in 1986, and foreign carriers are now allowed to operate domestic services. Abolition of the Air Services Licensing Authority is included in the Civil Aviation Law Reform Bill 1990 now before Parliament.

Reform of the maritime industry initially concentrated on restructuring port management systems. Commercial port companies replaced locally elected harbour boards in 1988. Non commercial statutory functions related to harbours were transferred to local authorities. The New Zealand Ports Authority was abolished, and port investment decisions left to local management. In 1989 the abolition of the Waterfront Industry Commission replaced the distinctive administrative structure of waterfront employment with a system of labour relations consistent with the rest of New Zealand industry.

The coastal shipping industry currently has a regulatory regime that restricts operators to using locally surveyed vessels and New Zealand crews at local wage rates. While a power of exemption to this regime exists, the effect has been to reserve coastal trade for locally registered vessels.

In March 1990, the Government indicated the possibility of change to this regime, while an industry working party started to develop a new crewing regime for local ships.

### Central government involvement in operations

As has already been noted, the New Zealand Government has traditionally directly owned major transport operations. This policy, which can be traced back to the nineteenth century has been totally reversed since 1984.

Within New Zealand, the Government's withdrawal from direct involvement in transport operations has frequently been seen as driven by a determination to realise public assets in order to reduce public debt. While there is no doubt that the overall "asset sales" policy has played an important part in debt reduction, its major aim remains the improvement of operations performance, leading to reduced total transport costs. Traditional transport management policies have frequently had little to do with cost structures and a great deal to do with social and employment policy.

Major Government transport operations have generally first been established as public corporations (known as State Owned Enterprises), in order to develop appropriate commercial environments before sale. During this period, there has been extensive restructuring to focus on commercial goals. Certainly the most dramatic of the restructuring processes has been that applied to New Zealand Railways, whose staff was reduced from 23,000 in 1982 to under 10,000 in 1989, while retaining almost unaltered the total railway network, the Interislander ferry service and extensive road transport interests.

The state owned airline, Air New Zealand, has been sold to local institutional and private shareholders, with minority shareholding by Qantas, Japan Air Lines and American Airlines. Air traffic control services formerly operated by the Civil Aviation Division of the Ministry of Transport now form the Airways Corporation, whose long term future is currently under examination.

The Government has also indicated its intent to sell its shareholding in New Zealand's major international and local airport companies.

The Shipping Corporation of New Zealand, set up in 1973, has been sold to British interests.

The Railways Restructuring Bill 1990, currently before Parliament, sets in place the mechanism to sell all or parts of the Railways Corporation. This Bill potentially opens the way to sale of NZRC rail operations and associated operations.

### Local government involvement in transport operations

Local government in New Zealand has also traditionally had substantial interests in transport, particularly in ports, road passenger transport and airports.

Central Government policy in this area has been to set in place new administrative structures that place such operations on the same basis as private sector operators. In this way, it is hoped that the benefits of commercial management will act to reduce operating costs. Any asset sales that may follow are a matter for local decision.

New Zealand's airports, previously run by a variety of structures, are steadily being established as companies. Port companies initially had to have a 51% majority shareholding by local authorities, but the April 1990 Government Economic Statement indicated that this requirement would be removed, allowing local authorities to sell their shares.

Municipal bus operations are required to become companies (known as local authority trading enterprises or LATE's) by July 1991. Regional Councils owning such operations are required to divest these by 1994, giving component local territorial authorities first refusal to take over such companies. This policy has been adopted because Regional Councils are to become the major public transport planning and funding agencies, and would otherwise have a major conflict of interest between the planning and funding role and ownership.

### Safety environment philosophy

In the commercial and operating environments, Government policy has consistently been to withdraw from direct involvement, leaving individual operators with the prime responsibility to innovate, invest and operate, according to their assessment of the particular sector of the market in which they are interested, subject only to general commercial law. Only where clear social interests are involved - such as in urban public transport or schools transport - will there be public commercial intervention, and this will be on as cost effective a basis as possible.

The safety of the transport system remains a major area of Government activity. The Government is seen as having a primary function to ensure that users of transport systems, and those whose lives may be affected by those systems, are not put at undue risk by the operation of those systems.

Traditionally, responsibility for transport safety has rested, at least implicitly, with Government agencies that have relied on direct, constant, and labour intensive inspection of operators and vehicles.

There has also been a traditional argument that quantitative controls applying to the transport industry, since they tended to ensure commercial stability for operators, also ensured a higher degree of operational safety. It is an argument that has been much used against the removal of quantitative controls, but it ultimately fails to address the real question of responsibility for transport safety.

A fundamental reform of transport safety policy is now being developed on the principle of quality systems management. The first comprehensive expression of quality systems management applied to transport safety regulation is set out in the Swedavia McGregor Report. Now generally referred to in New Zealand as the "safety audit" policy, it forms the basis of a developing policy for transport safety management. The concepts involved are directly related to the Total Quality Management approach developed by W. Edward Deming

### Safety audit

The key to the principle of safety audit is operator responsibility. However large an army of technical inspectors any Government employs, it cannot remove from the transport operator the fundamental responsibility for safe operation. This is hardly a new principle, but one that had become obscured in the New Zealand context.

Once the operator's responsibility for safety is clearly restated, attention must focus on the way in which that operation is managed to ensure safe operation. Quality systems management principles thus become more important as a continuous process to ensure safety, rather than the previous system of technical checks that dealt only with transport systems at specific points in time.

The role of public authorities in the safety audit process is thus redefined. While operators have the first responsibility for safe operation, the Government sets the minimum safety standards for entry to the particular operating sector. Operators are then monitored - or "audited" - on a regular basis to ensure that their quality management systems are functioning correctly. If corrective action fails to continue to assure safe operation, then the Government takes action to ensure that unsatisfactory operators are removed from the transport industry.

Safety audit is a new approach to Government involvement in transport safety, and its introduction will be both gradual and developmental - for both operators and auditors. Nevertheless, substantial progress has been made in a short time.

Safety audit does not imply any diminution of Government concern for transport safety though direct Government intervention in operations will reduce. The present safety regime has, for example, been extended to include the whole transport sector, bringing in areas such as tow truck operators, that were previously largely ignored.

It is an approach that is concerned with performance, and not with artificial sectoral distinctions. In the road transport freight industry, for example, the traditional distinction between "commercial" and "own account" operators has been removed. It is the existence of an operation, however small, that involves the use of heavy road freight vehicles that is important.

### Entry principles

Entry to the transport sector presently retains traditional training and testing procedures for technical staff such as pilots, ships officers or taxi drivers. For operators - those who manage transport operations - the conditions for entry are changing substantially. In place of detailed financial investigations, nominally designed to test a notional ability to survive in a particular transport sector, applicants for transport operator licences or certificates will increasingly face procedures that assess management systems.



In the next three years, road transport operators will be required to demonstrate their knowledge of required road transport procedures. Air transport operators, under the Civil Aviation Law Reform Bill 1990, now before Parliament, will have to demonstrate that they have established formal safety management procedures before they are allowed to commence operations. Similar procedures for the maritime and railway sectors are under advanced development.

### Monitoring

Once in the industry, participants are monitored to ensure that their safety management systems are fulfilling their purpose. Safety audits will vary according to the nature of particular sectors. If safety management irregularities are detected, then corrective action will be followed by an increased rate of audit, to ensure that the correction has had effect.

While the argument that quantitative controls enhanced safety through industry stability has been rejected in the formulation of safety policy, safety clearly imposes costs on the transport sector. A consistent set of safety standards should impose consistent compliance costs to all participants in any sector.

The safety audit principle means, however, that there are financial benefits from safe operation. Operators whose safety management systems need corrective auditing in addition to basic regular audits will face the direct additional costs of such audits. In this way, safe operation within prescribed standards will avoid increases in compliance costs and thus a reduced ability to deliver cost effective transport.

Safety audit principles require appropriate and reliable databases for their full effectiveness, and the Ministry of Transport is now planning to devote considerable resources to the development of such databases, and the means to analyse and act on the trends that they show.

### Exit procedures

Safety audit systems must also have a mechanism to remove operators from the transport sector, if they consistently fail to meet required standards. Increasingly, this "exit function" is implemented by licence suspension or revocation as an administrative action of the Ministry of Transport, with appropriate rights of appeal to the Court system.

### Progress of safety audit

Safety audit is a developing concept, and one that will be less easily implemented than the removal of quantitative controls or the sale of Government transport operations. It is a policy that requires extensive education and training of all participants.

It is an approach that is most easily implemented in sectors that have a small number of substantial operators. The problems of introducing it in sectors with large numbers of small operators are complex and options are still being considered. In general aviation, for example, it seems likely that the club structure will provide a means to promote quality management standards for single aircraft operators.

The core of safety audit is personal responsibility, and that too is a concept that requires promotion in transport sectors used to detailed and direct Government intervention in every aspect of their activities.

#### Government intervention philosophy

Though the philosophy of that involvement has changed, and continues to develop, the Government retains a major involvement in the transport sector. Economic regulation specific to the transport sector has almost gone and direct ownership of transport operations is declining. Intervention in the safety environment remains important, but changing in concept and administration.

Changes in the administration of the transport sector have been based on a series of basic principles that have been applied to the whole New Zealand public sector in recent years.

Under the State Sector Act 1988, Government departments, such as the Ministry of Transport, have been given clearer management goals, but also greater management independence to carry out their agreed functions.

Consistent with the general Government policy to simplify administrative structures, the traditional network of semi independent licensing authorities and advisory groups is being steadily reduced. With the removal of quantitative licensing, administrative functions can now be carried on within Government departments, subject to appeal to the courts.

There has been much controversy over the decision that Government provided services such as licensing, certification, testing and audit are to be charged for at a rate that recovers all the costs associated with that activity. The intent of this policy is based on the fundamental premise that all costs on any economic sector must be transparent to all involved.

#### Ministry of Transport

The Ministry of Transport, as the Government agency primarily responsible for the transport sector was reorganised into four modal business groups (including the Meteorological Office) in 1988, with a small corporate office responsible for long range policy planning, financial management and audit services.

With the management of the remaining public sector transport corporations under a separate Government agency, the Ministry's role is now clearly focused on the development of transport safety and efficiency. Occupational safety for workers in the transport industry is the function of Occupational Safety and

Health, a unit of the Department of Labour, so that the Ministry of Transport concentrates on safety for transport users and those affected by transport systems (Figure 2).

A major component of the Ministry's Land Transport Division is the Traffic Safety Service, which consists of 1175 uniformed traffic officers, who are responsible for road traffic safety enforcement and education. In 1989, the Traffic Safety Service took over the last of the local authority traffic forces, although local authorities retain responsibility for parking control.

Much of the Ministry's recent activity has been devoted to the sectoral restructuring already described. With the main outlines of this policy in place, and implementation well advanced, attention is now turning to the interfaces between modes to ensure that cross modal flows of both passengers and freight flow smoothly and at minimum cost. The Civil Aviation Law Reform Bill 1990 typifies this concern, as it proposes the amalgamation of the separate Ministerial portfolio of Civil Aviation and Meteorological Services into the broader Transport portfolio.

#### Government agencies outside the Ministry of Transport

Government policy on transport administration has been to concentrate activities as far as possible within the Ministry of Transport or to involve local government to a greater degree than in the past.

Only where there can be shown to be fundamental conflicts of interest likely to be created by retaining an activity within the Ministry have new central Government agencies been created.

As a result of this policy one new agency, Transit New Zealand, was created in 1989, and another, the Air Accidents Investigation Commission, is proposed for 1990. Both will report to the Minister of Transport independently of the Ministry.

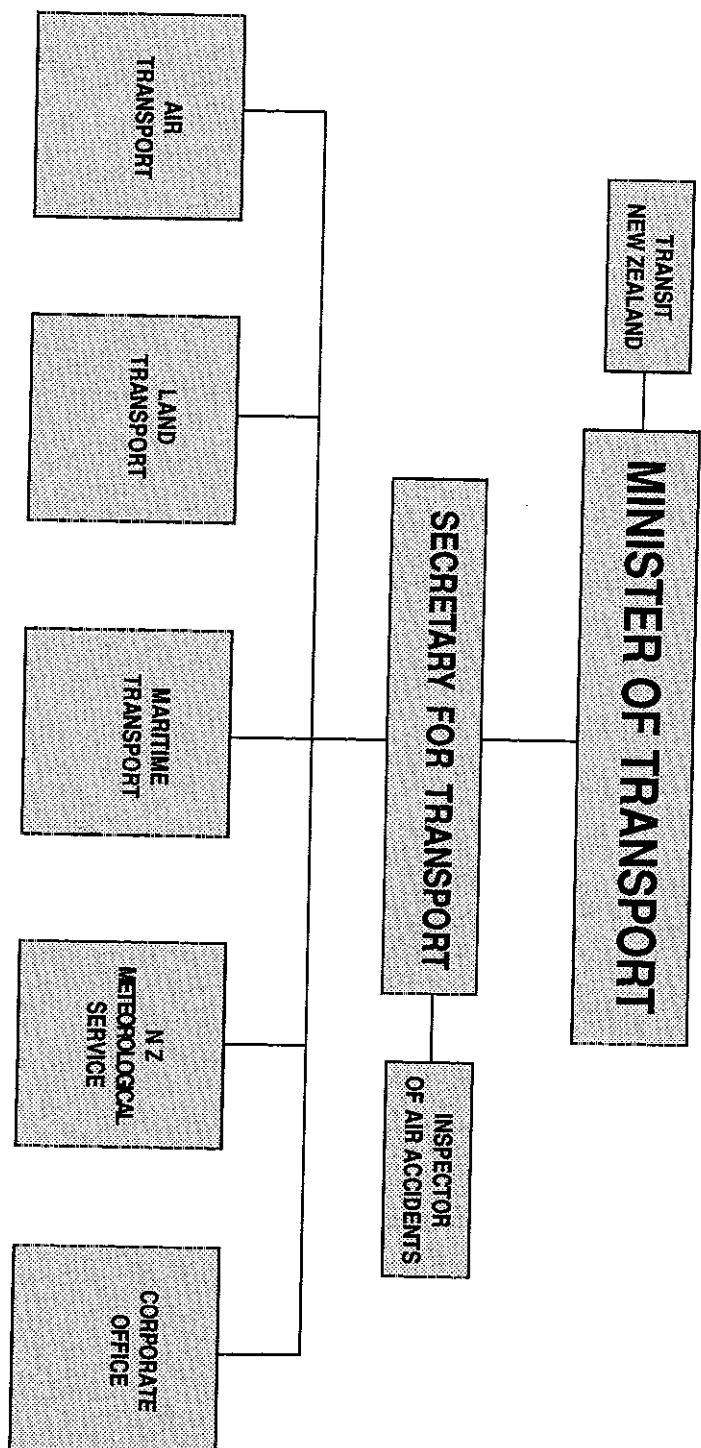
Transit New Zealand replaced the National Roads Board and the Urban Transport Council, and is primarily concerned, in conjunction with local bodies to provide the infrastructure of the roading system and fund public transport. It remains apart from the normal departmental structure to remove it from political influence in expenditure decision making.

Its income comes from the Land Transport Fund, which receives the revenue from transport specific excise taxes on fuel and Road User Charges paid by operators of large vehicles. The same Fund also pays for the Ministry of Transport's Traffic Safety Service and other road safety activities.

Planning of infrastructure and safety expenditure is a cooperative activity between local authorities, Transit New Zealand and the Ministry of Transport (Figure 3).

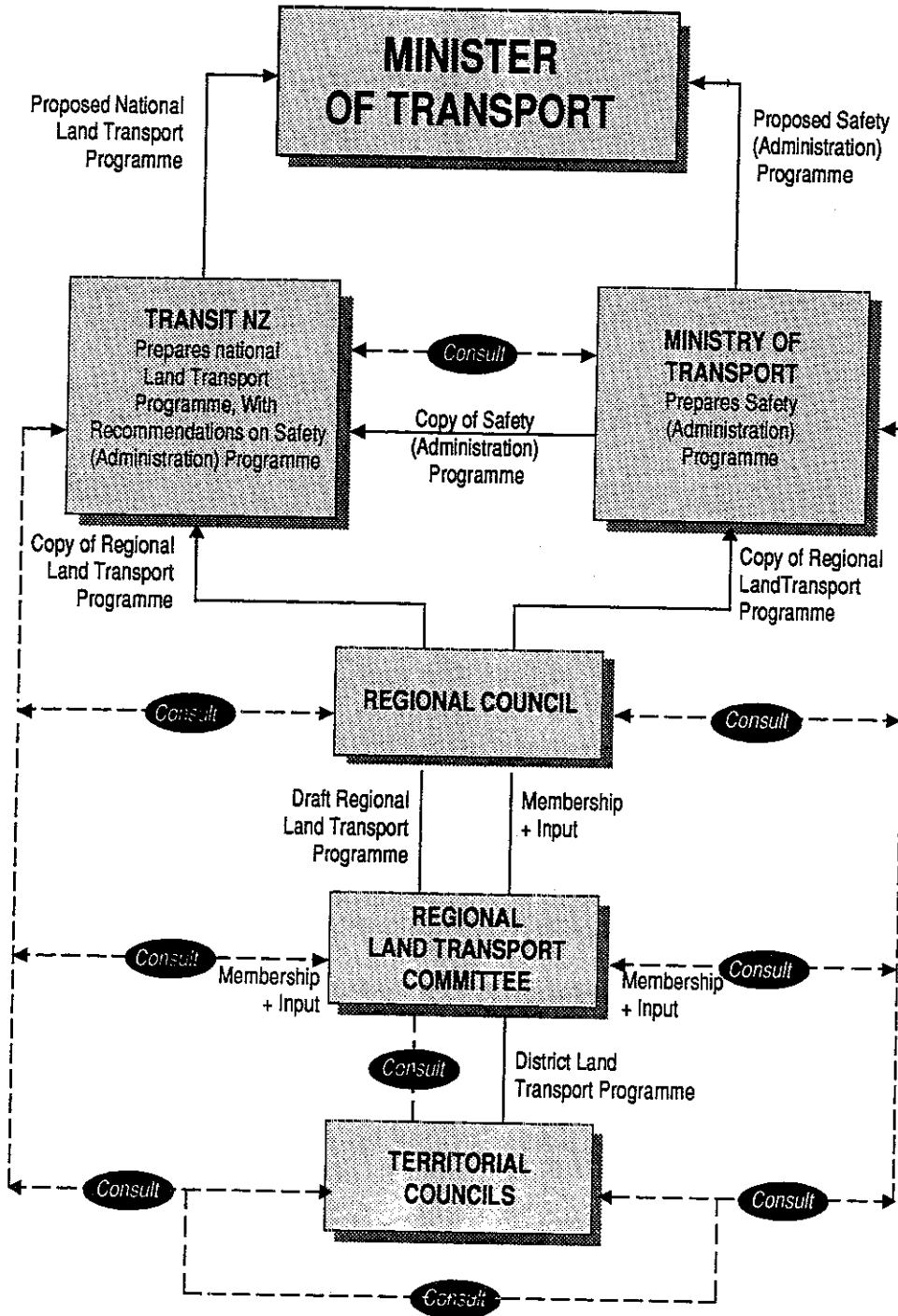
As already noted, the new Regional Councils are to take over important functions in the planning of the national passenger transport network. From 1991, territorial authorities may apply to take over the management of all or part of the State Highway system in their district, relieving Transit New Zealand of the direct roading management function it inherited from the National Roads Board.

**Figure 2 Ministry of Transport Organisation**



# Transit New Zealand Act

## Planning Relationships



The Air Accidents Investigation Commission, proposed to be established in late 1990, will take over the role of the Chief Inspector of Air Accidents. Its structure as an independent Commission investigating serious accidents is considered necessary to prevent any conflict of interest with the regulatory role of the Ministry. The Commission will eventually become the Transport Accidents Investigation Commission, with a brief to investigate all major transport accidents in all modes. This development is part of the establishment of uniform procedures affecting all transport modes.

#### Administrative changes in progress

The delivery of Government services to the transport sector is another important area that is undergoing change to improve cost effectiveness.

While the Government retains the responsibility for important functions such as entry control or safety audit, this does not mean that it will continue to directly provide those services itself. If the end product is better or cheaper, then it may be contracted out to another organisation. Recent initiatives in this area include the first trials of contracting out driver testing; the withdrawal of the Ministry's two Fokker F27 Calibration Flight aircraft in favour of private contractors; and proposals for transfer of the private vehicle licensing system to garages undertaking Warrant of Fitness testing, using a computer network operated by a contractor. The safety audit procedures now being planned for the maritime and railway sectors will, from the start, contract out the direct audit component to suitably qualified third parties.

The two main international airport companies at Auckland, Christchurch are actively campaigning to take over the role of the Aviation Security Service currently operated by the Ministry. Such a change involves the potential transfer to the private sector of powers, such as the right of search or of arrest, that until now have been required to be directly accountable to Parliament through a Minister. This is likely to be a contentious issue.

The Ministry is also forming commercial units to manage other activities such as heavy vehicle testing stations, although decisions have yet to be made about the long term structure and responsibilities of these units.

The effect of all these changes, is increasingly a Ministry that designs and recommends transport policy, develops the standards necessary to implement that policy, and then hires appropriate contractors to provide the necessary operations.

#### Outcomes

It is evident that the dramatic changes in New Zealand transport policy that have been examined here have not yet had their full effect - indeed, even if no further structural changes were made from this moment onwards, it could be five years before a reasoned assessment of the whole policy could reasonably be made.

While the policy formation is largely complex, much of the implementation is still in progress. Application of safety audit procedures have only begun this year, while the new land transport passenger system does not come into full effect until 1991. Even where implementation is apparently complete, such as the restructuring of the ports, the consequences of the new structures are still being worked through. The organisational culture and operating practices of decades do not always change overnight.

It follows that any assessment can only be limited, and inherently anecdotal. The previous quantitative regimes generated large amounts of information; the new open structure provides more limited administrative data, and this is a feature that both researchers and administrators have to come to terms with. It is not just operators and administrators who have to become cost effective, but also the information gathering processes on which economic and policy decisions are based.

In essence, it is safe to say that the fundamental aim of achieving reductions in transport costs is being achieved. Rail freight rates on main trunk routes fell up to 50% between 1983 and 1990. Long distance rail and road services have been improved and accelerated, particularly in the interisland market.

Between June 1986 and September 1989, domestic air fares were reduced by 33% in real terms on the main trunk routes, while passenger numbers rose by 25%. Customer service standards have been noticeably improved, with extensive programmes of terminal construction and the installation of airbridges. While large aircraft have been withdrawn from a number of provincial services, they have been replaced by smaller aircraft operating at generally greater frequencies.

The reform of port administration is beginning to show signs of dramatic improvement in costs and charges. The Port of Auckland has increased its productive rate of cargo handling by 50% in the period 1988-1989, and has publicly announced that it will reduce port charges by 10% in the next two years. Interport competition is increasing - Napier, for example, is making substantial investments to cater for the meat trade currently handled by Wellington.

There is an increasing body of evidence to suggest that the policy aim of transport cost reduction is being achieved through the new more open administrative structures.

#### Future trends

It is unlikely that the pace of change in transport will slow in the near future. Many of the changes already described are still taking effect, and will continue to generate additional consequential reforms and reshaping.

While the new economic and administrative structures are in place, the process of implementing the safety audit system will require a major philosophical redirection for both regulators and operators. This process can be expected to be a major activity in the early 1990's.

There are many transport issues that remain to be addressed - the question of the transport system's impacts on the environment is likely to be an issue that will need major policy attention in the near future. The availability of suitably trained and educated people to enable operators in the new system to reach their full potential is also an issue that will have to be tackled.

#### Conclusion

Since the early 1980's, New Zealand's transport system has undergone a series of changes certainly unparalleled since the 1930's and very probably since the beginnings of European settlement.

The changes have affected everyone in the transport sector, and in turn the whole of New Zealand society. Change on the revolutionary scale is always difficult, sometimes frightening and never universally popular. Yet, while acknowledging these very human reactions, there has to be an equal recognition of the sometimes reluctant acknowledgement in many areas of New Zealand society that the old transport system could not have continued for much longer.

Final assessment of New Zealand's transport changes of the 1980's and 1990's can only be left to future reviews. To many of the participants, the changes were inevitable and a necessary requirement for of New Zealand's future economic development.



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