



Ministry of **Transport**
TE MANATŪ WAKA

A STRATEGY FOR DOMESTIC SEA FREIGHT: MAY 2008



SEA CHANGE

TRANSFORMING COASTAL SHIPPING IN NEW ZEALAND





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FROM THE MINISTER



I am delighted to introduce this final domestic sea freight strategy. It's quite a voyage that we've been on together – government, industry and the regions – and one that will continue as we work to increase shipping's share of freight movement.

In 2006, spurred on by ideas put forward in the New Zealand Shipping Federation's *Roadways to Waterways* document, the Ministry of Transport established a sector reference group. The group helped in preparing the draft *Sea Change* strategy, which Cabinet agreed should go out for public consultation in November 2007.

Now we have the enhanced version of that strategy, updated and amended in the light of consultation. It was gratifying to receive so many thoughtful responses, to strengthen the strategy and to make the aspirational goals more tangible. Common focal points were targets, improved access to funding, and issues around ports, ownership and related services. We have reflected this emphasis in the final strategy.

The submissions informing this strategy have come from a wide range of people and organisations with diverse concerns and interests. The detailed material from their valuable input will be used for ongoing reference as the finer details of the action plan are worked out.

But it is not just about shipping. As many of the submissions rightly pointed out, intermodality should be the way forward – looking at alternatives and making intelligent use of our transport modes.

Consequently, there are obvious linkages with other transport initiatives, and energy and environmental ones. *Sea Change* is aligned with the soon-to-be released update of the *New Zealand Transport Strategy*, and will also contribute significantly to New Zealand's economic and environmental goals.

We are pleased that there was so much support for this vision. I welcome your ongoing involvement, as government, industry and the regions steer the course towards our targets.

Hon Annette King
Minister of Transport
May 2008

Thank you for your input...

This strategy has taken account of the public's submissions, and details in these will be used for ongoing reference. Please note that the examples quoted in this strategy are illustrative only and not meant to be comprehensive. A summary analysis of the submissions can be found on the Ministry's website: www.transport.govt.nz

...please stay in touch

If you have an ongoing interest in *Sea Change*, please contact the Ministry of Transport at: seachange@transport.govt.nz





SETTING THE SCENE FOR A SEA CHANGE

In New Zealand only 15 percent¹ of our inter-regional domestic freight is currently transported by sea. For an island nation, with a long coastline and rugged landforms, this seems anomalous.

In Japan, where the geography is not unlike our own, domestic sea freight has more than twice that market share. In the European Union in the next 10 years, growth in the amount of freight carried by sea will be greater than the growth in freight carried by road². This trend is nothing new: since 1995 sea freight has been actively encouraged by European Union transport policy.

Over recent decades in New Zealand, domestic sea freight has not taken a growing share of the market because road and rail have offered a faster service, greater convenience, and sometimes a lower total supply chain cost. Other reasons for the loss of competitiveness have been suggested. For example, according to some interested parties, unequal costing structures and subsidisation of other services have contributed to the situation.

Without question domestic sea freight has been neglected – considered less relevant to society than once it was – but in the 21st century New Zealand has different imperatives.

What other considerations should there be? For individual businesses making commercial decisions, perhaps none; but for New Zealand as a whole there are four:

- + environmental sustainability
- + demand on roads
- + intermodality
- + changes in global shipping.

ENVIRONMENTAL SUSTAINABILITY

Addressing climate change, while advancing long term environmental sustainability, is now central to the government's economic transformation agenda. The transport sector is highly dependent on fossil fuels, and is a significant source of greenhouse gas emissions. In October 2007 the government announced a target of reducing per capita emissions from the transport sector by half by 2040. Moving an increasing share of freight onto sea transport is part of the pathway towards this.

Compared with other modes, shipping is relatively energy efficient in moving freight, and efforts are underway to improve energy efficiency and cleanliness³. By increasing the emphasis on transporting goods by ship, the sea freight sector can effectively contribute to the government's climate change target.

DEMAND ON ROADS

Because demand for road transport has been increasing faster than the growth in population and because freight volumes have been increasing faster than the growth in GDP, New Zealand's roads are increasingly under pressure. Total freight movements are expected to more than double by 2040.

Sea Change looks for opportunities to meet this expected growth in freight movement.

1. Ministry of Transport estimate in terms of tonne-kilometres. Actual data is not collected

2. 2006 Transport Policy Review Slides Presentation http://ec.europa.eu/transport/transport_policy_review/doc/2006_transport_policy_review_slides_presentation_en.pdf

3. For example, the International Chamber of Shipping's 2008 Shipping and the Environment Code of Practice provides a clear statement of environment obligations and information about a safe and efficient maritime transportation system



INTERMODALITY

Fundamental to meeting the growth in total domestic freight movement is the concept of intermodality: the effective use of different transport modes in combination, to achieve an optimal and sustainable use of resources and the most effective supply chain. In the context of domestic sea freight this means integrating freight movement by ship with delivery to and from ports, by rail and road, on the basis of 'best fit' for the particular consignment.

Sea Change does not mean that the government will be unfairly supporting the domestic sea freight industry as a competitor to the road freight industry, or to the rail freight industry. It does mean, however, that in an expanding freight market, the government will support efforts of freight users to choose the modes that are not only in their own commercial best interests, but also in the best interests of New Zealand as a sustainable nation.

CHANGES IN GLOBAL SHIPPING

International shipping companies are increasing the size of their ships and reducing the number of ports they visit. With these vessels already calling at fewer ports in New Zealand, we need to create 'hub and spoke' networks – effective feeder services (spokes) conveying freight to and from the gateway ports (hubs). And without a strong domestic sea freight industry there will be further pressure on road and rail networks.

"There will need to be good connectivity between modes, with minimal delays and damage to freight at intermodal connections and terminals."

– Kapiti Coast District Council



Courtesy of Ports of Auckland Ltd.

It is for all these reasons that the government is committed to a revival of domestic sea freight in New Zealand. A significant increase in sea freight's share of a rapidly expanding domestic freight market is entirely consistent with the government's goals of economic transformation and environmental sustainability. Domestic sea freight can be a vigorous strand of an affordable, integrated, safe, responsive and sustainable transport system.

Government wants to play a leadership role in the revival of domestic sea freight, and has been able to learn from other countries' experience.

Industry has been proactive. The New Zealand Shipping Federation prepared *Roadways to Waterways*⁴, an analysis of

the barriers to growth in domestic sea freight with suggestions on the role the government might play.

Sea Change is the government's response. The submissions received on the draft strategy document published in November 2007 have led to including intermediate targets in the final strategy, and an increased emphasis on streamlining funding processes and on developing ports policy.

Sea Change will see shipping companies, port companies, importers and exporters, freight forwarders, and all other stakeholders working jointly, and taking action severally, to transform the way domestic sea freight helps freight movement in New Zealand.

4. *Roadways to Waterways – Enhancing New Zealand's Surface Transport Options*, September 2006





ISSUES AND SOLUTIONS IN TRANSPORT

There are a number of challenging issues affecting the transport sector over the next 30 years. These include the need to address climate change, the likely increased cost of fuel, and the affordability of the infrastructure required for New Zealand to remain competitive in a global economy. Domestic sea freight is part of the solution.

Increasing shipping's share of the growing inter-regional freight task will assist in the following areas.

Tackling climate change – as shipping produces less carbon dioxide (CO₂) than land transport (particularly road haulage) per tonne-kilometre of freight. Although coastal shipping can only substitute for some land freight journeys, where it is a viable option it can make a significant contribution to the overall target of halving per capita greenhouse gas emissions from domestic transport by 2040, based on 2007 levels.

Resilience to increased fuel costs – because shipping is more energy efficient than road haulage. As fuel costs increase, this is likely to provide an economic incentive for more freight to be transported by sea, provided the capacity is available within the sector.

Ensuring that infrastructure, required for New Zealand to remain competitive, is affordable – because shipping requires relatively little infrastructure. The costs of building and maintaining roads and rail tracks are significant. Investment in capacity at ports, for example in inter-modal freight transfer facilities, is an efficient solution to transferring domestic freight over longer distances. In addition, a strong coastal shipping sector, combined with port facilities for moving freight from one ship to another, is required to interlink domestic sea freight with international shipping. This is a key part of achieving supply chain efficiency, and keeping New Zealand businesses competitive in overseas markets.

Domestic sea freight can contribute effectively to addressing these issues. Arguably it meets more of its direct costs, and avoids some of the consequences of other transport types, through a relatively efficient use of energy and reduced environmental impacts.

While domestic sea freight currently performs worse than land modes in terms of sulphurous and nitrous oxide emissions, it offers much better fuel efficiency per tonne-kilometre for particular types of freight (long haul, bulk quantities, with longer delivery timeframes).

Sea Change is an example of putting solutions into action:

- a. A revitalised domestic sea freight industry will make choices possible for a significant percentage of inter-regional freight – using sea transport in combination with appropriate land transport for optimal and sustainable use of resources.
- b. A revitalised domestic sea freight industry will make possible a more energy efficient, environmentally friendly choice of transport for users in a number of industries. Greenhouse gas emission reductions will result from shifting from the less efficient and hence higher carbon-emitting modes (such as road transport) to the lower carbon-emitting mode of shipping. Efficiency in this context is the fuel used per tonne kilometre (ie volume of freight multiplied by the distance travelled). Achieving the 2040 target for sea freight is expected to result in an approximately 3.5 percent reduction in CO₂ emissions per capita⁵.
- c. *Sea Change* is a new approach by government to a transport problem. It is about the government providing leadership to help the industry more fully integrate domestic sea freight into New Zealand's freight transport system by developing more attractive, door-to-door freight transport services. It also involves targeted funding to 'kick start' proposals which are sustainable and have economic benefits.

5. The level of emissions reduction, as a result of sea freight's increased share of transport, has been estimated using European figures for grams of CO₂ emitted per tonne-kilometre by the various modes (European Conference of Ministers of Transport 2006, data from EU15) and will be recalculated when New Zealand data is available. The reduction in CO₂ is compared to a business as usual scenario where the share remains 15 percent of inter-regional freight.

LINKAGES WITH GOVERNMENT'S ENERGY STRATEGIES

As part of its package of climate change policies, the government released in October 2007 the New Zealand Energy Strategy (NZES) and the New Zealand Energy Efficiency and Conservation Strategy (NZECS).

The NZES sets out the transport-related energy and climate change priorities and the government's long-term strategic direction. The transport objectives within the NZES will inform the targets set in the forthcoming update of the *New Zealand Transport Strategy*.

The NZES envisages a resilient, low-carbon transport future scenario, which will require both significant reductions in greenhouse gas emissions and improved security of supply for transport energy. The scenario anticipates a significant reduction in the growth of the tonne-kilometres of freight carried by road freight vehicles, by increasing the proportion of freight carried by sea freight or rail.





The NZECS sits alongside the NZES and is a detailed action plan for the energy efficiency, energy conservation, and renewable energy programmes across all sectors of the economy.

By June 2009, baseline data will be established for the volume of freight and the carbon dioxide (CO₂) emissions per tonne-kilometre of freight moved domestically by different modes. This data will enable better assessment of how New Zealand shipping can contribute to the government's climate change commitments.

ENVIRONMENTAL IMPACTS OF SHIPPING

Shipping is relatively more energy efficient than other transport modes in terms of tonne-kilometre freight movement, and makes a relatively small contribution to total CO₂ emissions. Shipping carries 90 percent of the world's total freight load but produces only an estimated five percent of total global CO₂ emissions⁶.

European Union experience suggests that shipping produces the lowest levels of greenhouse gas emissions, per unit of freight carried, of any transport mode:

MODE	GRAMS OF CO ₂ PER TONNE-KILOMETRE ⁷
Road 	123.1
Heavy duty road vehicles 	92.0
Rail 	22.8
Coastal shipping 	13.9

Shipping also has some negative environmental impacts. It is a source of marine and air pollution, including sulphur dioxide and nitrous oxide emissions and the risk of oil spills, which will all increase with increased shipping traffic. Shipping may also help introduce non-indigenous species to areas they would not reach naturally⁸.

The large potential benefits of reduced CO₂ emissions from increased use of domestic sea freight need to be supported by a continuing focus on reducing more localised environmental impacts, including efforts to reduce sulphur dioxide and nitrous oxide emissions from vessels.

6. European Conference of Ministers of Transport 2006. Data from EU 15

7. The United Nations' International Maritime Organisation is re-assessing the levels of CO₂ produced by shipping

8. Marine non-indigenous species may be spread through fouling on vessel hulls or from discharge of vessels' ballast water



New Zealand is active on many fronts to address these broader environmental impacts. The Maritime Transport Act 1994 and Marine Protection Rules aim to prevent and control pollution by oil and other substances and the country has a robust Marine Oil Spill Response Strategy.

The New Zealand government is party to a number of international conventions addressing the prevention or control of marine pollution by ships, including domestic and international shipping. The government also actively considers new measures as they are promulgated.

The environmental impacts were of particular interest to regional councils because of their responsibilities for the local quality of air, water and noise. Submissions pointed to the need for ongoing work with local government.

"If the high energy requirements of speed are translated into surcharges for customers, or discounts offered for choices of slower modes, then the volumes of freight traffic that are contestable between road, rail and coastal shipping increase."

– Environment Canterbury

"The environment can be protected by ensuring coastal ships are modern and as fuel efficient as New Zealand can afford. Improvements to fuel quality will reduce emissions of SO_x [sulphur dioxide] and NO_x [oxides of nitrogen]."

– New Zealand Shippers Council

PATHWAY TO ACTION

Targets – Exports and imports are both projected to grow significantly, and most will be moved by sea. The development of 'hub and spoke' shipping networks brings with it the need for feeder services. Domestic sea freight can be the most logical transport mode for much of this inter-regional freight.

Our target is for domestic sea freight to be carrying at least 30 percent of *inter-regional* domestic freight, assessed in terms of tonne-kilometres, in New Zealand by 2040. This aspiration is twice the estimated share of domestic sea freight today.

The total freight task across all modes in 2040 will be about 2.3 times today's task⁹. If it doubles its market share of inter-regional freight movement, sea transport will be carrying about four times as much freight in tonne-kilometres in 2040.

As a pathway to this target, an interim target is to move 20 percent of inter-regional domestic freight in New Zealand by 2020. This is an approximate doubling in the freight tonne-kilometres currently carried by sea.

Action plan – To galvanise this Sea Change for domestic sea freight, four immediate steps have been identified. These are based on the experience of other countries, developed in consultation with the industry, and have been supported by the public consultation process.

The steps, appropriate for the government to take to lower the barriers to transforming domestic sea freight, are:

- + providing a visible focal point
- + improving access to developmental funding
- + information gathering
- + workforce initiatives.

Work on these steps, detailed on page 36 of this document, is already underway. This work – and progress towards achieving the overall target – will be systematically monitored and reviewed.

Supply chain policy, particularly in relation to ports, was identified through the consultation process as a major area for review. It is included in the action plan as a further step.

9. This estimate for all freight growth is based on Treasury long-term forecasts for GDP and makes an assumption that tonne-kilometres will begin to decouple from GDP growth in the 2020 to 2040 period. The annual freight growth rates are 3.2 percent to 2020, 2.2 percent to 2030, and 2 percent to 2040.





FREIGHT BY SEA

INTERNATIONAL SEA FREIGHT

The New Zealand economy relies heavily on the flow of goods to and from international markets. All but the merest fraction of those goods leave or arrive by sea: 99.5 percent of exports (by tonnage) and 99.4 percent of imports¹⁰.

The ships that carry this cargo are not owned by New Zealand companies. More than half of the top 20 international shipping companies include New Zealand in their schedules. One of Maersk Line's largest global customers is Fonterra.

More goods are being shipped than ever before. Reduced barriers to trade, enhanced information technology and cheaper and quicker transport have enabled a greater exchange of goods, capital, people and ideas between nations.

This globalisation of markets has led to changes in supply chains. Manufacturers are increasingly outsourcing responsibility for product components to specialist suppliers and this increases freight movement. Raw materials are sourced in one country, the goods are manufactured elsewhere and the finished products are sold everywhere. (Hewlett-Packard, for example, estimates that the various parts in a computer workstation in a New York office were moved a total of 96,000 kilometres from their points of production in places such as Singapore, Japan, France and the Western United States¹¹.)

As a result of this, supply chains are converging and becoming complex.



10. Statistics New Zealand data for the year to 30 June 2007

11. From *The Evolution of Ports in a Competitive World*, The World Bank, 2007

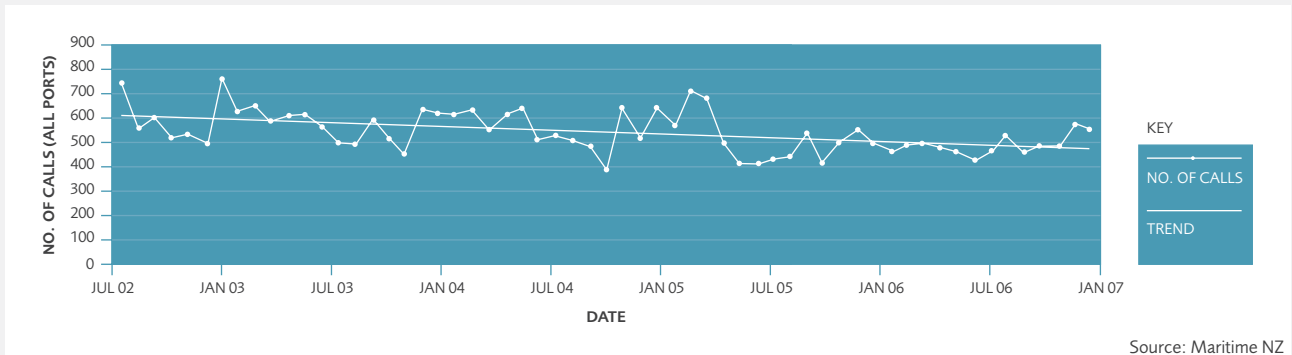
In response to this growth in the international movement of goods, ships are getting bigger. Larger vessels achieve economies of scale; they are faster, and cheaper to construct and maintain per TEU¹². Worldwide, the share of container ships in excess of 5,000 TEU has increased from one percent in 1996 to 30 percent in 2006¹³.

The handling equipment at ports has needed to grow in size to accommodate larger ships. Today's largest cranes have an outreach of 22 rows of containers and are suitable for loading ultra-large container ships of 8,000-10,000 TEUs. Larger ships also place pressure on the storage facilities of ports.

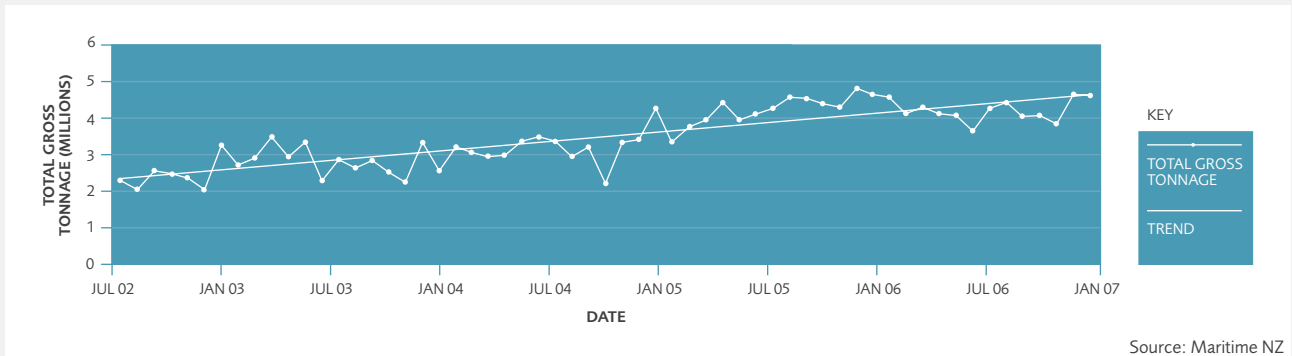
Shipping is a capital intensive industry and this has led to industry consolidation through acquisitions and mergers. The number of shipping companies worldwide is shrinking.

For New Zealand, a consequence of these trends is that distribution patterns are increasingly evolving into 'hub and spoke' networks to maximise use of the larger ships. New Zealand is already experiencing the effects of this: there is a steady decline in the number of ships visiting and a steady increase in the size of the ships visiting our shores. Maersk Line currently visits nine ports here but recently signalled a preference for one main port in each island and three or four feeder ports. This will have implications for our domestic supply chains and the associated freight task.

Vessel calls



Vessel tonnages



12. Twenty-Foot Equivalent Units. A measure of container ship capacity

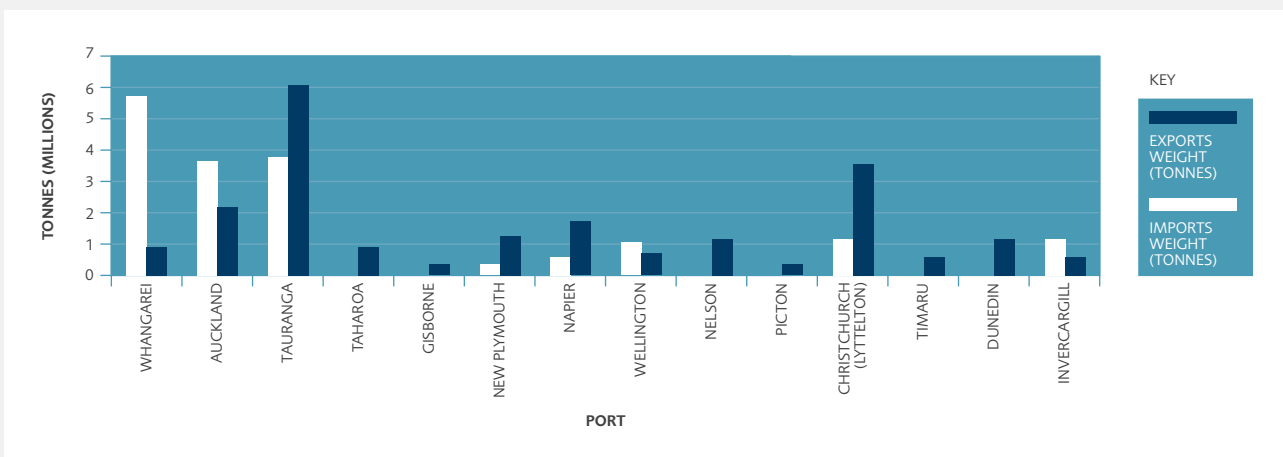
13. W.van Heusden, Custom Brokers and Freight Forwarders Association



DOMESTIC SEA FREIGHT

New Zealand ports and shipping routes are shown on the maps on pages 18-21. Of these ports, those handling the big tonnages of exports and imports are Tauranga and Auckland, Whangarei (oil), and Lyttelton (coal).

Imports and exports by port 2007



Most freight coming from or going overseas arrives at the port or leaves on a truck. On a tonne-kilometre basis, road freight accounts for 67 percent of domestic inter-regional freight movement.

Of course, much of this market is not available for coastal shipping: nearly half of all road freight tonnage is moved within the Auckland region, within the Canterbury region, between Waikato and Bay of Plenty, or between Waikato and Auckland. Nevertheless, a third of road freight journeys are of distances over 200 kilometres, and the reduction in the number of ports visited by international services will mean more freight moving further domestically.

New Zealand's existing domestic sea freight industry is small. Eight New Zealand companies operate thirteen ships¹⁴, including the five Cook Strait vessels. The only change in over a decade has been an increase in capacity across Cook Strait. These local ships carry 85 percent of what coastal cargo there is; the balance is carried by international ships.









In 2003/04, 8.6 million tonnes of cargo was carried by sea. Most of this (89 percent) was purely domestic cargo, about half of which was in containers. The remaining 11 percent (less than a million tonnes) was export or import cargo, almost entirely containerised.

14. Ministry of Transport figure as at February 2008. Excludes tugs and barges



Courtesy of Ports of Auckland Ltd

A benefit of domestic sea freight is the amount of cargo a single ship can carry. The following table illustrates the carrying capacity of some existing ships used around New Zealand's coasts and identifies the number of trucks under current conditions that would be needed to carry the same tonnage:

TYPICAL COASTAL SHIP		NUMBER OF TRUCKS REQUIRED TO CARRY THE SAME TONNAGE	
Oil tanker		1,358	
Container ship		382	
Cement ship		312	
Collier		282	

Source: Ministry of Transport

International calculations show that domestic sea freight is more energy efficient than other modes. We do not have the data in New Zealand to form a definite conclusion about the situation here. More robust information on New Zealand's domestic sea freight energy efficiency will become available from data collected as part of the New Zealand Energy Efficiency and Conservation Strategy.



Domestic sea freight's energy efficiency per tonne-kilometre makes it a much cheaper mode of transport for longer distance transport. For example, to move a standard container from Auckland to Christchurch door-to-door has been estimated to cost¹⁵:

MODE	ESTIMATED COST
By road 	\$2,200 – \$3,000
By rail 	\$1,300 – \$1,900
By coastal ship 	\$850 – \$1,300

As with all things, there is a relationship between what you pay and what you get. The road option may be the most expensive, but the service is daily and fast. The domestic sea freight service is slower and less frequent. Rail is somewhere in between. No one mode may meet all needs, so freight operators need to think of themselves as part of the total supply chain.

Cheapest is not always best. According to a survey of freight users by Sea and Water (the British organisation created to help increase the amount of freight carried on waterways)¹⁶, reliability was considered more important than cost in the choice of mode. The survey found that while 70 percent of respondents had a positive attitude towards water-freight transport as an environmentally sustainable alternative to road, the biggest barrier to water freight was speed of delivery and its effects on just-in-time practices.

To summarise:

- + the move by international shipping companies to 'hub and spoke' networks will increase demand for inter-regional freight movement within New Zealand
- + because coastal ships can carry high volumes of freight, it would be in New Zealand's interests for them to become a much bigger contributor to inter-regional freight movement
- + domestic sea freight offers energy benefits, through shipping's greater fuel efficiency per tonne-kilometre and lower greenhouse gas emissions than other modes
- + domestic sea freight offers cost benefits to freight users
- + more important to many freight users, however, is being offered a service that fits in with their business operations. Any initiative to increase domestic sea freight's share of the inter-regional freight market, therefore, must include streamlining shipping logistics. That way, the offer to users can be not just a cheaper price, but also a relevant service.

"No single initiative contained in *Sea Change* will have greater positive impact on coastal shipping than fostering of international hub ports in New Zealand. This will generate suitable base cargo volumes making coastal services more viable and competitive."

– Ports of Auckland Ltd

"There are significant differences between type of cargo (eg bulk and containers) that affect decisions by potential carriers... Care must be taken not to transfer the requirements of one particular type of freight to another."

– Local Government New Zealand

15. Ministry of Transport estimate based on quotes from freight forwarders

16. www.seaandwater.org

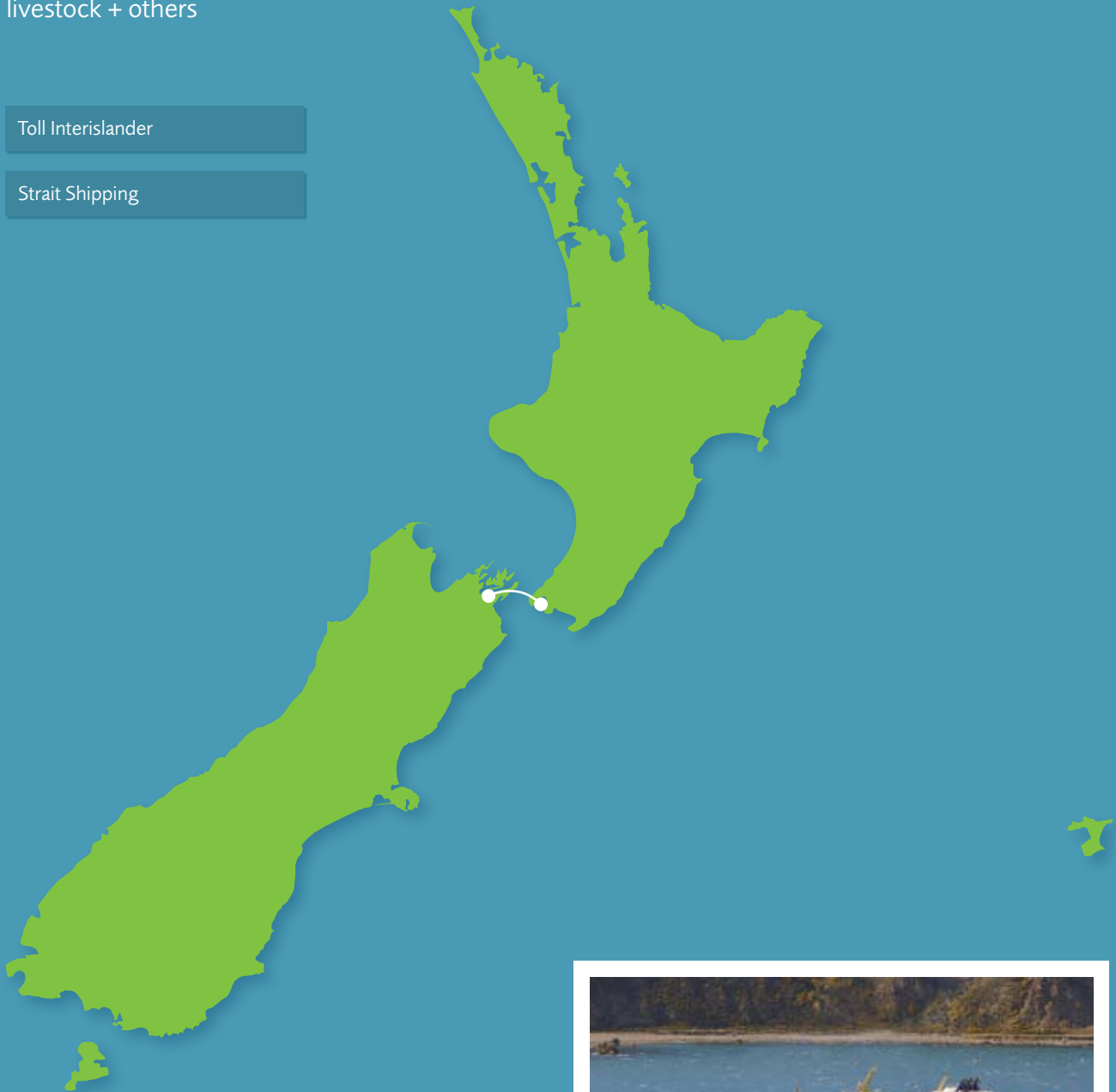
DOMESTIC SEA FREIGHT

Typical existing routes

COOK STRAIT

Passengers, containers, general freight, vehicles, livestock + others

- Toll Interislander
- Strait Shipping





COASTAL

Containers, general freight, vehicles, livestock + others

Pacifica Shipping

Strait Shipping

Black Robin Freighters



Courtesy of Pacifica Shipping Ltd

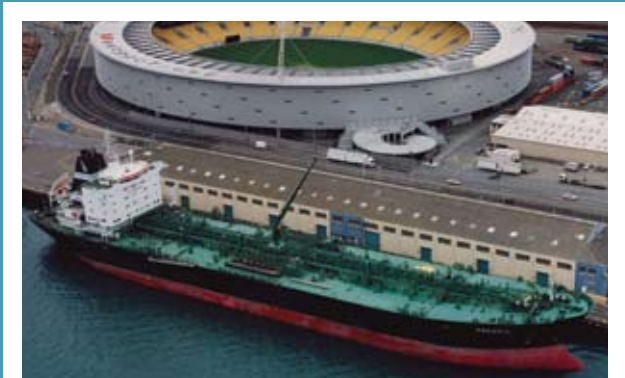
DOMESTIC SEA FREIGHT

Typical existing routes

BULK

Oil, cement, coal + others

- Silver Fern Shipping
- Holcim
- Golden Bay Cement
- Sea-Tow



Courtesy of Silver Fern Shipping Ltd



OVERSEAS TRANSIT SHIPPING

Containers, general freight,
vehicles + others

- China Ocean Shipping
- Malaysian International Shipping
- Mitsui O.S.K.
- Pacific International
- Mediterranean Shipping

- Hamburg Sud
- Tasman Orient
- CMA CGM
- Australian National
- ...and others







SEA CHANGE: THE PATHWAY

Sea Change is more than aspirational, it is also a practical plan for action, with targets and steps to achieve these. It makes sense to put a stake in the ground. To set targets that – when achieved – would make a material difference to transforming New Zealand.

TARGETS

With a shift to 'hub and spoke' networks increasing the volume of inter-regional freight, and with domestic sea freight's generally better energy and environmental outcomes, it is important that action is taken to ensure domestic sea freight can take a significant share of this freight.

The target set is for domestic sea freight to be carrying at least 30 percent of all inter-regional domestic freight in New Zealand by 2040.

The target, effectively a doubling of domestic sea freight's share of inter-regional freight, is intended to focus our attention on achieving a tangible outcome and it will provide a measure of our success. In tonne-kilometres this means sea transport will be carrying about four times as much freight as now.

An interim target has been established as a pathway to 2040. This interim target is to move 20 percent of inter-regional domestic freight in New Zealand by 2020 – approximately doubling the freight tonne-kilometres carried by sea.

There were strong views about strengthening targets with suggestions for interim targets and monitoring progressing towards these.

"An intermediate goal of 30 percent by 2025 would really help focus on the key actions needed to achieve substantial change relatively quickly."

– Forum for Auckland Sustainable Transport

"...would like to see clearer and more specific actions developed with responsibilities, timeframes and funding assigned to each."

– SmartGrowth



Courtesy of Ports of Auckland Ltd



Courtesy of Ports of Auckland Ltd



SEA CHANGE: THE ACTION PLAN

Sea Change heralds a new future for domestic sea freight in New Zealand, and a new partnership between government and the industry.

These are the five specific and immediate steps the government is taking to help transform domestic sea freight in New Zealand.

1. **Providing a visible focal point** – As a transport mode, coastal shipping lacks visibility. Relative to its land-based counterparts, this is quite literally true, but it has also been true of its profile within government. Elsewhere in the world, the revival of coastal shipping has been assisted by specific agencies that provide a point of focus. The government has already allocated three years' funding for strategy and policy work on domestic sea freight in New Zealand including establishing a Seafreight Development Unit (see following page).
2. **Improved access to funding** – The National Land Transport Fund has funding available for domestic sea freight "initiatives", generally to assist with "start-up". Until now, however, very few applications have been received, or approved. Improving access to the funding is underway – putting in place criteria and processes to ensure government funding is available for worthwhile domestic sea freight projects.
3. **Information gathering** – The ability of government (and government agencies) to make decisions about domestic sea freight has been hampered in the past by lack of data that, for example, demonstrate domestic sea freight's relative contribution to desired transport outcomes. A key function of the new Seafreight Development Unit will be to improve processes for collecting, updating and providing information.
4. **Workforce initiatives** – For domestic sea freight to meet expanding demand it will need more skilled people. A role for government, therefore, is to work with the industry to ensure it has the necessary capacity.

5. **Policy development** – The consultation process confirmed supply chain policy, especially in relation to ports, as an area for particular attention, as well as capacity issues for domestic sea freight and formal distribution arrangements between international and domestic carriers.

These initiatives have been developed in consultation with the industry to overcome identified barriers to the transformation of domestic sea freight. Overseas experience has shown such initiatives are an appropriate contribution for a government to make.



PROVIDING A VISIBLE FOCAL POINT

A component of many overseas initiatives to revitalise domestic sea freight is the provision of a focussed resource. Throughout Europe, for example, there are nearly 20 shortsea shipping promotion centres in member states (collectively the European Shortsea Network), including Sea and Water in the United Kingdom. Similarly the United States has the Short Sea Shipping Cooperative¹⁷.

These organisations differ in how they are funded, in their role definitions, and in where they are located (whether in government agencies, or elsewhere), but what they share is a mission to develop the carriage of freight by water. Here is the mission statement of the United States organisation, for example:

"To develop and promote the use of short sea shipping as a commercially acceptable, safe, secure and environmentally beneficial means of reducing congestion along an overburdened surface transportation system. The Short Sea Shipping Cooperative Program is committed to build a reliable alternative mode of waterborne transportation, capable of complementing rail and highway surface transportation and meeting the economic needs of American shippers."

Establishing something similar in New Zealand is considered an important step in the revitalisation of our own domestic sea freight capacity. The newly established Seafreight Development Unit (SDU) will meet this need.

The SDU will provide a visible focal point for *Sea Change* initiatives, in particular facilitating communication and the sharing of information between government and the industry.

The objectives

The SDU will have three objectives:

1. To help establish domestic sea freight as a valid transport alternative and complementary transport mode, especially for inter-regional freight.
2. To foster awareness of the potential energy benefits of using domestic sea freight in particular, and green supply chains generally.
3. To facilitate the provision of intermodal end-to-end freight solutions incorporating domestic sea freight.

The activities

It is expected the SDU will achieve its objectives by:

- + promoting awareness of the benefits of domestic sea freight amongst key stakeholders, including shippers of freight, at regional and national levels
- + developing an online database on coastal and feeder services (schedules, vessel configurations, cargo limitations). The database would include the availability of support services (eg connecting road/rail operators)
- + informing shippers of the options sea transport presents, including options that involve linkages between sea, road and rail
- + informing central and local government advisors and decision makers of the role that domestic sea freight can play in developing a sustainable, integrated transport network
- + engaging with regional and national governments where policy, funding, and ownership decisions impact on modal integration and the effective operation of transport hub and feeder services
- + informing and advising public and private transport operators and users of available government funding options and assisting operators to apply for available funds
- + supporting the development of skills, training and employment opportunities for New Zealanders in domestic sea freight.

17. www.shortsea.info, www.seaandwater.org, www.shortsea.us



Courtesy of Ports of Auckland Ltd.

Location

The SDU will initially be based within the Ministry of Transport. Longer term, its location will be determined by taking into account:

- + what location would be most beneficial to the achievement of its objectives
- + the need for neutrality (in the sense of having no vested interests)
- + access to and for interested parties in both government and industry
- + opportunities to minimise overheads.

The Land Transport Management Amendment Bill currently before Parliament will merge Land Transport New Zealand and Transit New Zealand into the New Zealand Transport Agency. The New Zealand Transport Agency might provide an appropriate base for any ongoing SDU role.

An advisory board is one way of ensuring broad sector interests are incorporated. The sector reference group already established to inform the development of *Sea Change* will take on this role. The Ministry will convene the sector reference group.

Funding

The government has already provided funding for three years from 2007/08 for domestic sea freight policy work, including the costs of the SDU.

Review

Before the end of the initial three-year funding period, the SDU's achievements against its objectives will be reviewed and decisions made about the unit's future, its role and its funding.

There was general support for establishing a unit (referred to as the Maritime Liaison Unit in the draft strategy) that would be committed to improving sea freight capacity and performance.

"The role of the MLU should be proactive as well as facilitatory."

– Auckland Regional Council

"The MLU's primary role should be the development and promotion of coastal shipping co-modality initiatives to the benefit of national sustainability and competitiveness".

– Venture Taranaki

"...to improve the quality of data available for decision making in relation to the choice of transport modes... to assume the role of change agent."

– CentrePort

IMPROVED ACCESS TO FUNDING

The government spends a considerable amount on transport¹⁸ and domestic sea freight is already eligible for some of this funding. Its name notwithstanding, the Land Transport Management Act 2003 includes provision for coastal shipping, and within the National Land Transport Fund there has been an allocation of approximately \$2 million per annum specifically for proposals to reduce demand for road transport by transferring freight to rail or sea.

However, to date only two proposals from domestic sea freight have received government funding: one for barging aggregate from the Coromandel to Auckland and the other for barging logs in the Marlborough Sounds. Together, these projects have received funding totalling \$800,000.

Current framework

The low number of projects receiving government funding is not a sign the domestic sea freight industry does not warrant or seek assistance. It is more a consequence of some of the barriers – or perceived barriers – of the funding policies and processes to date:

- + Applications must be made by "approved organisations", which are generally territorial or regional authorities. Other interested parties (shippers, shipping companies and port companies) have not been eligible to apply directly.
- + Because domestic sea freight typically operates between regions, regional and local councils have tended to see little benefit in supporting proposals.
- + There is a perception that the process involved in obtaining approval for funding requires the disclosure of commercially sensitive information.
- + Because of the way proposals are evaluated, promoters are required to supply information about other modes of transport, which they may not have.
- + Conditions on how much of a project will be funded and for how long the funding might be provided have ruled out many proposals.
- + Funding is not available for capital expenditure.

Proposed approach

Land Transport New Zealand has established that domestic sea freight investment can have a high benefit-cost ratio in New Zealand.

The criteria and processes for accessing funding are being reviewed by the Ministry of Transport and Land Transport New Zealand to provide a more responsive system, one that overcomes the barriers identified above. Processes that facilitate better access to government developmental funding will be established by 30 June 2008, and a full review of whether access has been improved will be completed by 30 June 2009.

Having the Seafreight Development Unit will mean domestic sea freight interests can get help with understanding the funding criteria. The Unit will be able to draw any emergent issues to the attention of the New Zealand Transport Agency.

Three broad funding objectives are:

- + Proposals should be supported that contribute to the government's outcomes for transport in ways that deliver value for money.
- + Proposals should be supported that contribute to the development of end-to-end transport solutions. For example, helping a hub port company develop facilities for coastal shipping feeder services.
- + Proposals should be supported that would encourage more private investment in domestic sea freight.

Management of risks associated with capital investment

Revitalising domestic sea freight will require capital investment: vessels, ports, and other infrastructure. Funding approval must be based on sound business cases with payment linked to performance criteria. If government were to support capital investment, it may wish to do this by direct contribution, suspensory loan, or by entering some form of partnership. Asset assurance systems will also need to be developed.

The experience of other jurisdictions will provide useful examples of how government can support investment in the sector: the European Union, for example, has extensive experience in this type of investment.

18. The 2007/2008 National Land Transport Programme forecasts expenditure of \$2.14 billion, much of which is collected from road transport users through fuel excise duty, motor vehicle licensing and road user charges



Sources of funding

As has been mentioned, the funding allocation currently available to domestic sea freight is part of the National Land Transport Fund (NLTF), which is funded by road users through fuel excise duty, road user charges and motor vehicle licensing fees.

While the commercial shipping sector does not pay equivalent charges or fees¹⁹, transferring freight to other modes reduces the pressure on roads and so it is appropriate that NLTF expenditure contributes to alternatives.

The amount of funding available to sea freight proposals in 2008/09, and the conditions on which it is provided, have been reviewed. Further funding decisions will be implemented through the Government Policy Statement (2009-2012), which will drive NLTF allocations.

There was generally strong support for government funding, and submissions emphasised the need for more accessible processes and proper accountability and monitoring.

"Scheduled shipping activities have very different operational and [therefore] business funding requirements compared to land-based transport activities... must be accountable in terms of performance outcomes."

– *Pacifica Shipping*

"Currently there are barriers, or perceived barriers, for easy access to the Land Transport Fund."

– *New Zealand Chambers of Commerce*

"It is important that there is consistent treatment of capital allocation between modes to avoid inadvertently favouring one mode."

– *Institute of Professional Engineers of NZ*

19. Although it arguably pays a higher share of its total costs (including externalities)

INFORMATION GATHERING

A variety of information is available about domestic sea freight services in New Zealand but there are significant gaps, including some of the base information needed to make policy decisions between different transport modes.

A programme of information development is required. This programme will be developed in consultation with interested parties in government and the sea freight industry, and will identify:

- + the required information
- + sources of information
- + constraints on the availability of information (such as commercial confidentiality)
- + ways of mitigating constraints (such as reporting only in aggregate format)
- + appropriate agency responsibilities in provision, collation, storage and dissemination of information.

The Seafreight Development Unit will have a key role in coordinating this process with other agencies and industry.

Understanding transport costs and charges

A study is underway to scope understanding of the current funding, charging and pricing arrangements for road, rail and water transport. A gap analysis will also be conducted to understand cost and charges information needs.

The scoping exercise will be completed by the end of June 2008, and timeframes for further research on transport costs and charges for the three modes will be established soon after.

National freight study

The Ministry of Economic Development, the Ministry of Transport and Land Transport New Zealand have commissioned an empirical study that will improve understanding of the present and future demands of freight on New Zealand's transport system, and what demands will shape our supply chains. Empirical data will be used to develop a description of the current and future modal distribution of import, export, and domestic freight movements in New Zealand. From this information, the study, to be completed in June 2008, will also produce a picture of the likely future transport network.

Alongside this study, Transport Engineering Research New Zealand Ltd have been funded by the Foundation for Research, Science and Technology to identify the national and regional determinants of freight demand in New Zealand. This work will involve updating and improving their freight model that will cover road, rail, sea and air freight.



Courtesy of Ports of Auckland Ltd

The *New Zealand Energy Efficiency and Conservation Strategy* has established June 2009 as a target date for baseline data to be collated on the volumes of freight carried by each transport mode, and the CO₂ emissions per tonne-kilometre of freight moved by each mode.

A better understanding of the freight transport industry from these processes will significantly assist the Seafreight Development Unit (and others in the transport sector) in the achievement of the *Sea Change* targets and the wider New Zealand Transport Strategy objectives.

Strategic importance of domestic sea freight capacity

A successful outcome for *Sea Change* is dependent on the industry having the capacity to meet increasing demand. The size and nature of the required capacity is not yet determined, and this will need to be addressed. The transport essential for New Zealand in the event of an emergency, such as a national disaster, also needs to be determined.

There was support for this work programme and useful suggestions as to what information is required and sources for accessing it.

"Such a [national freight] study would provide a much needed overview of the current modal distribution of import, export and domestic freight movements, including an evaluation for the use of particular modes."

– Northland Regional Council

"More information about the terms and conditions of employment in New Zealand coastal shipping, comparisons with international standards and a profile of the coastal shipping workforce would all be useful".

– New Zealand Council of Trade Unions



Courtesy of Ports of Auckland Ltd



Courtesy of NZ Maritime School

WORKFORCE INITIATIVES

A revitalised domestic sea freight industry will need more skilled people.

The New Zealand workforce engaged in domestic sea freight is ageing – one third are over 60 years old. Recruitment is difficult because of the unique conditions that relate to seafaring. Financial support for students does not address practical sea-based training. There is also strong international competition for qualified personnel.

Some of these issues are relatively easy to address. Others will need more attention and consequently more time.

Planning

Experience in the roading sector²⁰ shows the usefulness of coordinating the development of workforce plans among representatives of relevant government agencies²¹ and with industry representatives.

A comparable action plan for domestic sea freight is being developed by the Ministry of Transport and the industry (shipping companies, ports, shippers and unions), with other government agencies. This much needed action plan will identify key activities, deliverables and milestones related to matters such as industry requirements, recruitment strategies, good employment practice and staff retention.

20. Report to Minister for Social Development and Employment Sector, *Engagement on Roothing Industry and Joint Action Plan on Buildability, Labour and Skills*, Department of Labour, August 2005

21. Such as the Ministries of Transport, Education and Economic Development, and the Department of Labour



Training and qualifications

The following areas will be addressed in improving training and qualifications of seafarers:

Regulation of training and qualifications – A large area of concern is the quality control structure and the balance of competency-based training and experiential requirements for seafaring positions. Maritime New Zealand's comprehensive review of Maritime Rule part 32, Qualifications, which governs this area, will be starting in the 2008/09 year.

Funding support for qualifying sea service – Training for maritime qualifications requires a candidate to undergo a course that involves a combination of shore-based training and qualifying sea service. The sea service component of the course is currently not eligible for funding from government (unlike practical service requirements in other training areas) and this is a disincentive to participation in maritime training.

The Tertiary Education Commission is working with the New Zealand Maritime School towards restructuring the training programme so that the sea-service component of maritime training can be eligible for training grants.

Amending sea service requirements – For higher maritime qualifications such as Deck Officer Class 1 or 2, a considerable amount of "foreign going" sea time is required – that is, sea time outside of the coastal limits in which the New Zealand fleet operates. The issue of qualifying sea service requirements has been recently reviewed and the rule amended to replace "foreign going" sea time with a voyage duration specification, as is done in some other jurisdictions.

Submitters supported the need for co-ordinated approaches to workforce development and emphasised consideration of the full range of workforce roles, both sea and shore based.

"The industry, in general, is concerned about the need to attract younger, skilled workers."

– *Business New Zealand*

"[Sea Change] goes part way to recognising the need for an action plan ... Maritime New Zealand, the Maritime School, employers, unions and the government will require some coordination to ensure absolute and not piecemeal compliance to an agreed industry employment plan."

– *IPC and Associates*

"When further considering the needs of support services... do not overlook the often forgotten role of surveyors. They are essential to the maintenance of quality shipping, its safe operation and control of pollution."

– *International Institute of Marine Surveying*

"There is a great need to train stevedores."

– *Tim Frank*



POLICY DEVELOPMENT

Supply chain policy received a significant amount of attention in the public consultation process.

Ports, in particular, received comment in submissions across a wide range of areas, including ownership issues, infrastructural investment and service alignment. With the exception of safety matters and port charges, most port policy issues have received little attention since the Port Companies Act was passed in 1988. Because of the level of interest in this policy area, it will receive priority over the next three years.

Another area the consultation process pointed to as needing attention was the formal distribution relationship between domestic and international sea freight services, including continuity issues arising from any disruption to international services.

Although divergent views were expressed, there was consistent concern for immediate and comprehensive action, including decisions around ownership, investment and intermodal arrangements.

“Although ports are (in the main) operated by port companies, the majority share holding lies with local government. Not only do local authorities expect a return on the community equity tied up in ports but as shareholders they are generally not well-positioned to invest in port-related infrastructure.”

– Local Government New Zealand

“The question of port ownership is in need of urgent overhaul.”

– Mitsui OSK Lines

“One of the anomalies that has hindered the growth of coastal shipping is the fact that when a tonne of cargo arrives at port for export by road or rail it does not attract port charges, but if that same tonnage were to arrive by sea then it does attract a charge in the form of marine charges and berthage.”

– Pacific Link

“The ownership structure of ports in New Zealand is not providing a platform for improvements in productivity and unit cost.”

– Maersk Line



MARITIME TRANSPORT ACT 1994

Section 198 of the Maritime Transport Act 1994 sets out the conditions under which New Zealand and international ships may carry coastal cargo in New Zealand.

As is evident from this document, the government is strongly committed to the growth of domestic sea freight services in New Zealand as part of its overall transport strategy. Section 198 is not seen as an impediment; overseas ships are important to the availability of domestic sea freight services and currently carry about 15 percent of all coastal cargo in New Zealand.

The government will retain the policy underlying section 198.

It is accepted, however, that clarification may be needed of how Section 198 should be interpreted in relation to carriage of coastal cargo by overseas ships in transit between New Zealand ports with international cargo. The government will be looking at this issue further when changes are next made to the Maritime Transport Act 1994.

Submissions showed strong support for retaining and clarifying section 198.

"Our understanding is that the rules for international shipping carrying coastal cargo in the normal course of discharging or loading their international cargo will not change. In the event of a vessel calling at a port that the ship must pass while sailing on its normal schedule may also carry coastal cargo. The proposed change (to s198) will not change this, and we want to preserve this option."

– The New Zealand Shipping Federation

CONCLUSION

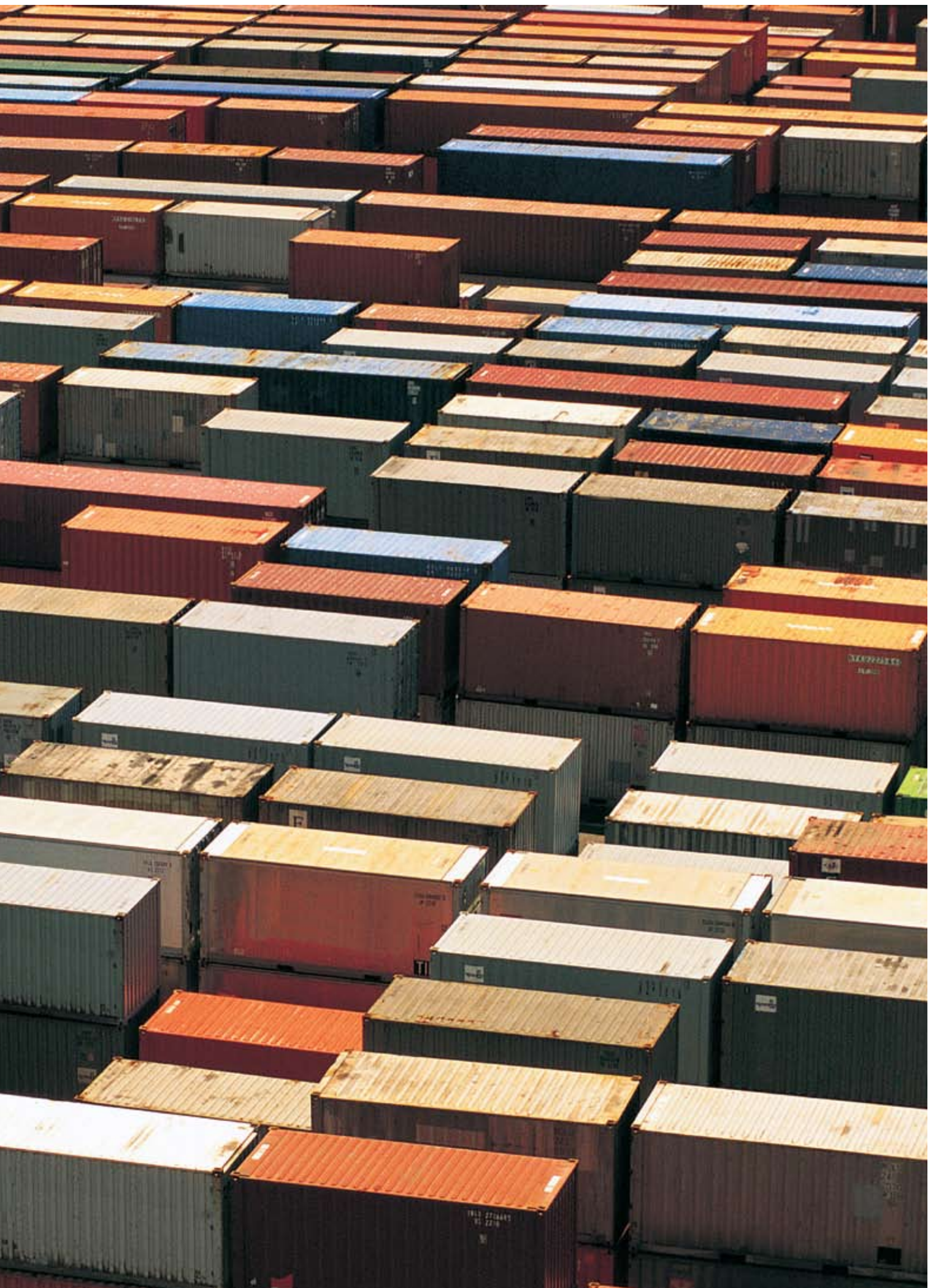
Sea Change, the final strategy, shows how government, industry and the regions working together can change the thinking about moving freight from one part of New Zealand to another; how sea freight can play a role in managing freight growth and increasing demand for transport; and how our domestic sea freight services can become integrated parts of intermodal freight transport solutions.

Making such a sea change will help achieve the New Zealand Transport Strategy objective of an affordable, integrated, safe, responsive and sustainable transport system, and to New Zealand's wider goals of economic transformation and environmental sustainability.

Follow the pathway...

THE PATHWAY – PLANNING STEPS

ACTION	RESPONSIBILITY	BY WHEN
PROVIDING A VISIBLE FOCAL POINT		
Establish a Seafreight Development Unit	Ministry of Transport	31 March 2008
Co-ordinate the acquisition and provision of information to sector participants	Ministry of Transport	Ongoing to 30 June 2010
IMPROVED ACCESS TO FUNDING		
Establish processes that facilitate access to government support funding	Land Transport New Zealand/ Ministry of Transport	Implement 2008/09
Provide assistance in understanding and accessing government funding support	Ministry of Transport	Ongoing to 30 June 2010
INFORMATION GATHERING		
Complete National Freight Study	Ministry of Transport, Ministry of Economic Development, Land Transport New Zealand	30 June 2008
Undertake <i>Understanding Transport Costs and Charges</i> study	Ministry of Transport	Scoping by 30 June 2008, full data collection by dates determined following scoping
Analyse capacity requirements for achievement of agreed targets	Ministry of Transport	30 June 2009
WORKFORCE DEVELOPMENT		
Develop an agreed action plan to address identified issues of recruitment, training and qualifications, and retention	Sector representatives/ Ministry of Transport	30 June 2008, followed by implementation
POLICY DEVELOPMENT		
Supply chain policy – ports, distribution relationships	Ministry of Transport	
+ Finalise work plan		31 December 2008
+ Complete policy process		30 June 2010
Clarify s198 Maritime Transport Act 1994	Ministry of Transport	According to legislative programme
MONITORING AND REVIEW		
Provide sector comment and advice on the implementation of <i>Sea Change</i> and any emerging issues	Sector Reference Group	Ongoing
Review whether access to government funding support has been improved	Ministry of Transport	30 June 2009 and to an agreed programme subsequently
Assess the achievement of domestic sea freight targets	Ministry of Transport	To be determined as part of review processes established in the updated NZTS
Evaluate the progress of the Seafreight Development Unit in achieving its objectives and advise as to any ongoing role	Ministry of Transport (using an independent evaluator)	By 30 June 2010



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