[Briefing Paper] - PECC International Project 2015-2016

Managing the Blue Economy: Future of Ports and Shipping in the Asia-Pacific Region

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Overview

This briefing paper aims to give delegates to the PECC seminar an overarching view of the main trends in trade, shipping, ports and infrastructure which are influencing change in the Asia-Pacific Region.

The major issues canvassed in this briefing paper include:

- Shipping industry malaise over-supply and not enough demand
- Industry reconstructing into global alliances of shipping lines
- Impact of mega container ships of 18,000 TEUs (twenty foot containers) capacity being introduced
- Effect on ports hub-and-spoke strategy of maritime routes A new hierarchy of first tier, second tier and feeder ports in Asia, the Americas, Australasia and Pacific Islands
- Cruise liners and the tourism industry the impact on ports
- Slow steaming the impact on trading
- New initiatives to reduce carbon footprints in shipping
- Safety issues the new international standards on verifying weights of export containers moving through ports
- Port Resilience and Recovery The policy dilemma for Governments– do domestic shipping operations need to be strategically supported, in view of the lessons of the Canterbury earthquake?

As the PECC conference is being held in New Zealand and several of local speakers will be addressing delegates and making reference to New Zealand issues, this briefing paper highlights New Zealand case studies where appropriate.

The lessons learned from these influences will help delegates understand the broad issues at play, as speakers address topics in more detail.

Shipping industry malaise - over-supply and not enough demand

The global shipping industry, container shipping in particular, is at one of the lowest points of profitability in history.

There is a huge over-supply of space (in respect of cargo space on ships) for the available trade volumes, and a history of lines operating consistently at loss-making levels while continuing to compete for market share based on price.

This has ultimately led to the bankruptcy of one of the leading lines in the world, the South Korean operator Hanjin. In September 2016, Hanjin was the seventh-largest container carrier in the world and a member of one of the top shipping alliances. It was part of vessel-sharing arrangements whereby the cargo of other lines is carried on its ships and its own cargo is carried on other lines' ships.

The bankruptcy allied to the interwoven web of global shipping has led to an international story of stranded cargo, vessel arrests and legal arguments as traders strive to get cargo cleared.

Maritime analysts SeaIntel have described the global shipping situation as "absolutely abysmal" with carriers reporting revenue deterioration over the year of between 17% and almost 30%. Analysts Drewry predict full-year losses for the industry of around US\$5 billion.

As for Hanjin specifically, SeaIntel estimated that it was losing US\$186 for every container moved, leading to its demise.

Industry reconstructing into global alliances of shipping lines

As shipping lines have faced the reality of severe financial losses, they have sought to group into global shipping alliances, hoping to contain costs and share vessel space.

Currently, the regrouping into three alliances is underway. The first is 3M – Maersk, MSC and Hyundai Merchant Marine. The second is the Ocean Alliance of CMA CGM, Cosco Container Lines (Coscon), Evergreen and Orient Overseas Container Line (OOCL.

The third is a grouping to be known as THE Alliance which unites Hapag-Lloyd, Mitsui OSK Lines, NYK Line; K Line and Yang Ming. Hanjin was also to be part of this alliance but its bankruptcy has precluded that.

All three alliances are factored on gaining dominant footholds in various sectors of the mainline East-West trades (Asia-Europe, Europe-North America and North America-Asia). However, it is inescapable that the creation of new alliances at global level affects the operations and partnerships of all these lines at regional level too, and therefore all shipping services influencing trade in the Asia-Pacific region.

Impact of mega container ships of 18,000 TEUs (twenty foot containers) capacity being introduced

The creation of major alliances has also allowed the world's top container carriers to invest in larger ships, in the hope of gaining economies of scale. These ships of 18,000 TEUs or larger are all being deployed on East-West trades.

Only the largest ports are able to accommodate these ships. As ships and carrier alliances get so large, they restrict the choice of ports and terminals that can accommodate them. Some ports – Busan in South Korea being a perfect example – have developed infrastructure to ensure they are in a position to do so.

However some ports and terminals are not able to quickly build the quay space, prepare the extra cargohandling areas or organise the transfers of cargo into and out the terminal. This makes them vulnerable to losing the support of the alliances.

These ports are also vulnerable to the negotiating power of the the alliances. While large alliances can bring ever-more cargo to a port or terminal in one visit with a giant containership, a decision by that alliance to move elsewhere can be catastrophic for the port in terms of losing a significant proportion of its trade.

A second major effect of the introduction of large container ships is that the smaller ships which are being replaced, are then deployed on to other services. This is called the "cascade effect".

In some instances the trade volumes on those other services are not big enough to fill the newly-arrived ships. The shipping lines are effectively forcing supply capacity into these markets, which further creates pressure on freight rates, and therefore on their own profitability.

The cascade effect has been further encouraged by the displacement of ships due to the widening of the Panama Canal (discussed below).

Effect on ports – hub-and-spoke strategy of maritime routes – A new hierarchy of first tier, second tier and feeder ports in Asia, the Americas, Australasia and Pacific Islands

The rapid introduction of large container ships has intensified the evolution of a new hierarchy within the ports structure. The "hub-and-spoke" philosophy refers to the system whereby large ships call only at a few selected "hubs", and the cargo to fill these ships is fed by smaller ships calling at "feeder" ports.

The aggregation of as much cargo as possible makes for a more economic operation for the shipowners operating the largest vessels as it removes the need for these ships to spend time calling at a multitude of smaller ports to fill the space onboard.

Restricting the ships to a few hub ports means that the major "linehaul" legs are done with speed, keeping transit time for cargo to a minimum. It also means that only the top tier of ports need to invest in the

dredging, cranes, marshalling area, railway lines and other infrastructure needed to receive the ships and handle the cargo exchanges (discharging cargo from the ships and loading new cargo onboard).

A hierarchy of ports therefore develops. Only a few selected ports such as Singapore, Tanjung Pelepas and Busan can take the largest vessels. This puts these ports on the top tier of the hierarchy.

At a slightly-lesser level are ports which can handle ships of perhaps 5000 TEU to about 13,000 TEU, which are still important as part of East-West main trading routes. At a third level are smaller ports only capable of handling the ships acting as "feeder" vessels to the hubs.

The same scenario above is replicated on a smaller scale in other countries. For example in New Zealand – a country which only recently has received visits from 9500-TEU ships but is mostly serviced by container ships in the 4500-5000 TEU class -- there is a container hierarchy too.

Tauranga, Auckland, Lyttelton and to a lesser extent Otago and Napier are the hubs. The other ports are only serviced by smaller vessels and in some cases these ports (e.g. Nelson) openly recognise their "feeder" status. Beneath these are a further tier of ports which play only a peripheral role in container trades and instead focus on bulk and breakbulk cargoes such as logs, woodchips, liquid fuels and grain.

The Effect on Trade and Shipping of the Panama Canal Widening

The opening of the enlarged Panama Canal is having a marked effect on shipping tradelanes.

Prior to 2016, capacity was restricted by the size of the canal. Container ships were restricted to about 4500-5000 TEUs (called "Panamax" class vessels). Shipping lines could increase carrying capacity only by putting on extra service strings (i.e. adding additional ships).

However the US\$5 billion expansion of the canal has created opportunities for vessels up to about 13,000 TEUs (called "New Panamax") to transit the waterway, two to three times the capacity of previous vessels, and substantially increasing the trade-carrying capacity of the canal.

A comparison of ship sizes before and after the canal expansion is found below:

Panamax vs. New Panamax			
	Panamax	New Panamax	
Length	294.13 m (965 ft)	366 m (1,200 ft)	
Width	32.31 m(106 ft)	49 m (160.7 ft)	

Draught	12.04 m (41.2 ft)	15.2 m(49.9 ft)
TEU	5,000	13,000

This means that shipping services coming from Asia which have previously accessed the whole North American market through US Pacific ports can now achieve economies of scale by sending larger ships through the Panama Canal, giving a more direct route to East Coast markets.

An example is Maersk Line, which in September 2016 introduced a new containerised round-the-world service, using 11 x 8500 TEU vessels to exploit the potential of the newly-enlarged Panama Canal. The benefit of direct transit was, it said, "significantly faster" transit times between East Asia and the US East Coast, and a better product to shippers in Korea, and northern and eastern China.

At the same time Maersk said it was able to reduce its CO₂ and exhaust gas emissions due to the shorter distance being travelled by its ships.

Such changes will permanently alter the competitive balance between ports on the East and West US coasts. Research conducted by The Boston Consulting Group (BCG) and C.H. Robinson suggests that up to 10 percent of container traffic to the USA from East Asia could shift from US Pacific ports to Atlantic Coast ports by 2020.

A further effect of the canal expansion is the challenge for shipping lines to determine how they wish to mesh their systems, with ships plying smaller North-South tradelanes connecting to ships on the East-West trades.

The North-South tradelanes are typically smaller ships, due to the fact that their cargo liftings are less than on the Asia-Europe, Europe-North America and Asia-North America main routes. The smaller ships often operate as "feeders", transferring their cargo to the bigger ships at specialist hub ports such as Singapore and Busan.

With shipping lines deploying ships up to 13,000 TEUs through the canal, carriers may wish to have feeder services contribute cargo loads to these vessels through hubs. However for some products (e.g. perishables such as meat and seafood from New Zealand to the East Coast USA), there is perceived to be a premium for faster, direct shipments without any transhipment.

How shipping lines solve this challenge will influence the trading patterns in the Pacific Rim.

Slow steaming - the impact on trade

Another major change that has occurred in global shipping is the advent of "slow steaming".

As a necessary response to the huge losses incurred by shipping lines during the Global Financial Crisis (GFC), the ship operators began to operate their vessels at slower speeds on many main line routes. The slower speeds equated to a saving in fuel costs, as the ships' engines consumed far less fuel.

The second effect for the ship operators was that because voyages were taking longer, more ships had to be employed to move the world's trade volumes within a set timeframe. This meant that more ships could be gainfully employed in a depressed economic environment, when otherwise many more ships would have been laid up (anchored and idle due to lack of demand).

For shippers (exporters and importers) there have been several negative impacts. Slow steaming has resulted in longer transit times, meaning that for perishable goods in particular, the shelf life of those goods is reduced on arrival at the destination market.

Because more ships are "on the water" at a given time, more containers are in use at a given time. Occasionally, this has exacerbated container and equipment shortages in some tradelanes.

Slow steaming has also been criticised by shippers (traders) who feel that it is simply a transferral of cost from the lines to them. They also argue that container lines have failed to pass on cost savings from slow steaming, while at the same time traders have had to operate with higher inventory levels due to slower delivery of goods.

Nonetheless, slow steaming has now become an entrenched part of the world shipping market.

New initiatives to reduce carbon footprints in shipping

Shipping and ports have made major improvements in improving their environmental performance in recent years, and new initiatives are currently underway. The focus has involved a diverse mix of more sustainable fuel sources, developing a responsible framework for ocean governance and financially rewarding sustainable performance.

One of the largest initiatives is the Sustainable Shipping Initiative (SSI), an independent charity, comprised of leaders spanning the whole shipping industry, which is dedicated to promoting sustainability; and working with its members and other shipping stakeholders to create a more environmentally-responsible, sociallyconscious and truly-sustainable shipping environment by 2040.

In 2016, the SSI launched its Roadmap to 2040, illustrating where the industry is now, and what is required for it to become truly sustainable by 2040, and critically, the key milestones that must be delivered. These include changes to regulation, governance and infrastructure, as well as development of emerging energy sources and technology. The SSI believes that the shipping industry must target an 80% reduction in CO₂ emissions by 2050. When it is considered that the International Maritime Organization's third greenhouse gas study predicted that CO₂ emissions could increase by as much as 250% by 2050, based on "business as usual", the need for urgent action is evident.

Without action, the shipping industry will account for 17% of global emissions and it must play its part in achieving the below 2-degrees warming target set in the Paris Accord (the UNFCCC's COP 21 meeting) in December 2015.

The Paris Accord gave fresh incentive for ports and shipping to make further progress. The climate change agreement created the first-ever universal, legally-binding global climate deal to which a total of 195 countries are signatories. Transport emissions are a significant target for achieving improvements.

The International Maritime Organization's Marine Environment Protection Committee (MEPC 70) is currently considering proposals for a framework that outlines the process for defining emissions reduction targets. The SSI believes this framework must be both transparent and challenging in its ambitions, but it must also be equitable and affordable for the industry, as well as enforceable on a global basis.

By the time the PECC delegates meet in Auckland, the Marine Environment Protection Committee's will have met to discuss two more important issues relating to carbon footprints.

These concern policy measures for the shipping sector in terms of CO₂ reduction and climate change, and a timeline for a global cap on sulphur emissions. A deadline of 2020 for introducing a global cap of 0.5% sulphur content in marine fuels has been mooted.

Should this be implemented, all shipping services in the Asia-Pacific area will have to address this in terms of their fuel choices, and possibly in scrapping older ships which are less able to be modified.

It is not just legislation driving the sustainability agenda forward. Market forces are playing a part. Increasingly, there are real demands being placed on ship owners and operators by their customers – the charterers and shippers – who want more sustainability within their supply chains. If ship owners wish to remain competitive within the market, they must do more to drive efficiencies in their operations.

SSI says that its members, market leaders within the industry, have found that a 5% to 25% reduction is achievable from using such technologies as engine improvements to newly-built ships or retrofitted to existing ships; from fuel additives; new propeller and hull designs; wind-propulsion technology and air lubrication systems; and advanced hull coatings.

The SSI welcomes the forces and technologies that make sustainability mainstream but is also mindful of the impact on ship owners and operators given the severe financial challenges they face, including low freight rates, increased competition, regulatory pressures and uncertainty over future fuel prices. Demanding

investment in the retrofitting of new technologies does not always go down well with owners and operators who are seeing their business models, profitability and in some cases even their continuity under threat.

However shipowner organisations are also showing a willingness to make a commitment to sustainability. The World Shipping Council (WSC) and its member companies are engaged in numerous efforts to reduce carbon dioxide (CO₂) and further improve efficiency across the world fleet. The council quotes a study by Lloyd's Register which found that the fuel efficiency of container ships of 4500-TEU capacity improved 35% between 1985 and 2008.

The industry continues to seek engineering and technological solutions to increase its energy and carbon efficiency, such as better hull and propeller designs, waste heat recovery methods and reducing onboard power usage to minimise emissions.

Opportunities are being studied to switch to lower-carbon energy sources such as Liquefied Natural Gas (LNG) and bio-fuels. Many shipping companies voluntarily track emissions, set efficiency targets, and examine ways to offset emissions through certified international programmes.

The WSC and its members are working through the International Maritime Organization to develop uniform standards for improving the energy efficiency of ship designs and exploring what global legal structure would best serve to reduce carbon emissions from maritime shipping.

In mid-2016 European ship-owners sent a strong message to Brussels to start the process of aligning European rules forcing shipping to monitor, report and have CO₂ emissions verified on an annual basis with those being developed at the International Maritime Organization.

In recent years, the development of an Energy Efficiency Design Index (EEDI) led to the adoption in 2011 of legally-binding energy efficiency standards applicable to newly-built ships. The standards apply to ships built in 2013 and later and require all future ships to meet increasingly-stringent fuel economy standards.

Regulatory initiatives have also played a part in making shipping more environmentally responsible. From the start of 2015, Emission Control Areas have been established in several areas including North Europe (including the Baltic Sea, North Sea and English Channel) and North America (200 nautical miles off the American and Canadian shoreline) which lower the maximum allowed content of sulphur in fuel burned to 0.1% from the previous 1.0%.

The intention is to reduce sulphur emissions from ships by 90% in ECA areas.

Cruise liners and the tourism industry – the impact on ports

The huge growth of the cruise tourism industry is promoting both economic buoyancy and providing logistical challenges for ports in the Asia-Pacific region, which are at the forefront of this growth.

Media and business attention has been focused on the launch of the Ovation of the Seas for the Royal Caribbean line, the largest cruise liner in the world.

The Ovation of the Seas has been built with the Chinese market in mind, with Royal Caribbean saying they expect to see Chinese patronage double with the arrival of this ship. Chinese cruise passenger numbers exceeded one million in 2015 and the Chinese Ministry of Tourism expects the number to more than quadruple by 2020.

The Cruise Lines International Association reports that a total of 52 cruise ships are operating in Asia in 2016. However for ports in the Asia-Pacific Region, the great rise in cruise traffic presents serious challenges in terms of providing berths and handling the passenger transfers from ship to shore. New Zealand presents a good example of this pressure.

In terms of economic benefit, the 2016-17 summer cruise season resulted in record spending, worth about NZ\$484 million to the national economy with predictions this will rise to NZ\$723 million within the next two years.

Cruise New Zealand's Economic Impact Summary Report showed Auckland had 105 ship visits in 2015-16, carrying 230,800 passengers. It was Auckland's biggest cruise season, worth NZ\$220 million to the local economy - 15 per cent up on the previous season.

Providing the logistical support for such operations translates into serious investment decisions for port companies. Lyttelton is considering the business case for a cruise ship terminal; Port Marlborough has had to address the dredging of its bay; and Auckland is looking at positioning a mooring dolphin at the end of its passenger wharf to provide for longer ships without spending money on a wharf extension.

Cruise New Zealand has warned that New Zealand is at a "critical" point where infrastructure is not meeting demand, particularly berths for ships that are getting bigger.

This has also been foreshadowed in the recent Auckland Future Port Study, which has reported that *"cruise berth capacity is already constrained at the port with berth length limitations preventing accommodation of the larger ships that are now being added to the global cruise fleet and starting to visit Auckland … The largest cruise ships could be anchored in the harbour and lighters could be used to ferry passengers to and from the shore but that would provide a lower quality experience for cruise passengers, reduce the attractiveness of Auckland as a cruise destination and reduce the economic benefit from cruise ship visits."*

The rapid rise of the cruise industry therefore presents significant challenges in the Asia-Pacific maritime landscape.

Safety issues - the new IMO standards on verifying weights of export containers moving through ports

The biggest single change that has impacted on ports and shipping companies, not just in the Asia-Pacific region but throughout the world in 2016 has been the requirement to adhere to the International Maritime Organization's change to the Safety of Life at Sea (SOLAS) Convention requiring that the gross mass of export containers must be verified (VGM) before the containers are loaded on board the ship.

Any export container which does not have its weight verified cannot be loaded. It is that simple and that severe.

The reason for the introduction of this rule stems from chronic problems with the mis-declaration of container weights in the past, leading to accidents. A container that is heavier than its declared weight may cause the failure of lifting equipment at the pack point. The road carrier who takes it to port may be in breach of the legal road weight limits. If the ship's planners are not aware of the correct weights, they may stow a stack of boxes which creates an imbalance on the ship, and impart stresses on both the stack of containers and the hull of the ship.

All of the above scenarios have occurred in practice, and therefore on July 1 2016, it became a violation to load a packed container on to an international vessel if the operator and marine terminal do not have a VGM.

The changes this has made in the working environment for ports, shipping lines, exporters and importers are profound. Under the SOLAS requirements, the shipper (i.e. the exporter) is responsible for providing the ocean carrier and the terminal operator with the VGM. Shippers have two choices to derive the VGM. The container can be physically weighed or the contents and the tare weight of the empty container can be calculated to a method prescribed by the International Maritime Organization.

Ports in general are not providing weighing services. This opens up the challenge of shippers having to find weighbridges which are certified, unless they opt for the calculation method. It is also their task to find weighing equipment that meets the regulations. The importance of this, from the shipper's perspective, is that when they get someone to calculate the VGM, they need surety that the figure they are given is accurate.

However each country has had to develop a uniform process in which shippers, freight forwarders, shipping companies, truck companies and rail operators are united, and by which the documentation provided to the export port is clear, accurate and timely.

In New Zealand this was achieved through initiatives headed principally by Maritime NZ (the national maritime safety regulatory body) and a Ports' Working Group set up to represent the ports companies.

The ports' group laid out its system requirements for collecting and managing the required information, whereby all export-bound containers received at a port from road, rail or coastal transhipment vessels must have the VGM information before they are accepted onto the container terminal.

Although this was a profound operational change for ports internationally, the introduction has largely gone smoothly in most countries.

Port Resilience and Recovery – The policy dilemma for Governments– do domestic shipping operations need to be strategically supported, in view of the lessons of the Canterbury earthquakes?

The severe earthquakes which destroyed much of Christchurch and badly impacted much of the Canterbury region of New Zealand in 2010 and 2011 has raised an ongoing philosophical transport policy question for Governments.

The earthquakes brought home the fact that land-based transport infrastructures are fragile and vulnerable, and in the case of a civil defence emergency, countries must turn to coastal shipping as the main supply line for food, medicines and essential supplies.

In the New Zealand context, the land-based transport infrastructure on the eastern coast of the South Island follows a narrow ribbon of coastal plains, bounded on one side by a mountain range and the other side by the Pacific Ocean.

Both the state highway network and the mail trunk railway line follow this narrow corridor. When the two earthquakes hit in 2010 and 2011, both road and rail links into Christchurch were ruptured. Roads were blocked by landslips. Rail tracks were warped and skewed, and trains could not operate until extensive repairs were carried out.

Air travel was still possible but was not a viable option for the transportation of critical supplies on a largescale basis.

The sole option was coastal shipping. Either roro (roll-on roll-off) ships or self-geared ships (equipped with their own cranes) were essential, or alternatively a shore-based crane that could operate from a still-operable wharf.

In the case of the Christchurch earthquakes, relief for the city and region came through a coastal shipping company, Pacifica Shipping, gaining access through the only concrete wharf outside the container terminal. This wharf had suffered minimal damage whereas the main container terminal was closed as port officials checked the integrity of the terminal structure and the shore cranes.

Among the cargoes delivered by Pacifica and a naval vessel were desalination units and wine tanktainers full of drinking water, which were delivered to the worst-affected city areas, with the shipping company's engineers rigging up multiple taps on the tanks so that water could be accessed.

In the debriefing following the earthquakes, there was frustration among local shipping companies that better use was not made of the roro capability available from local ships. Subsequently the New Zealand Shipping Federation (representing local shipping companies) is bidding to get the Government to recognise the strategic role coastal shipping has in responding to a civil emergency.

The federation's view on emergency preparedness is made clear in Full Steam Ahead, its discussion document published late in 2015. It says: *"The Canterbury Earthquake has made people more aware of the possibility of sea transport being needed in a civil emergency. Emergency planning needs to include coastal ship operators so that there is a realistic understanding of what resources are available.*

"New Zealand coastal ship operators are already entering into formal arrangements to provide local emergency assistance. This could include power generation, freight capacity (if roads become impassable) and accommodation.

"These local arrangements lie outside any national emergency planning. It is not known to what extent central or local government expects these resources to be available to them without having entered into a prior arrangement."

The New Zealand Government has recognised coastal shipping provides an important logistical link and capability during and following emergencies.

Section 90 of the Civil Defence Emergency Management Act 2002 (CDEM Act) provides requisitioning powers during a state of emergency but the Government view is that requisitioning of resources would be a last resort and only likely in situations where the necessary resources were not otherwise made available.

The wider question applicable to not just New Zealand, but all governments in the Asia-Pacific region, is whether support for coastal shipping needs to be strategically factored into its civil defence emergency planning.

If this is not so, governments are reliant on the commercial open market, for sufficient ships of the right type to be available at the right time.

Summary

The major issues canvassed in this briefing paper comprise the most compelling issues that are currently impacting on ports, shipping company operations, trading patterns and therefore trade itself in the Asia-Pacific region.

As Governments and ministries discuss these issues at PECC and consider which policy initiatives may be most appropriate to support the region's trading future, it is appropriate to reflect on these compelling issues.

A concise executive summary of these reveals that the shipping industry malaise globally, with over-supply of ships and not enough demand, is creating instability. Already, one of the top ten global containers carriers had failed.

The shipping industry is reconstructing into global alliances as shipping lines seek to reduce costs in the face of major financial losses. Slow steaming has become prevalent as another means of cutting fuel costs, impacting on the transit time for perishable goods to get to supermarket shelves.

The top lines are also going for economy of scale with mega container ships of 18,000 TEUs (twenty foot containers) capacity being introduced.

This demands a hub-and-spoke strategy of maritime routes, where "feeders" deliver their cargo loads to "hub" ports which service the biggest container ships. This results in a new hierarchy of first tier, second tier and feeder ports in Asia, the Americas, Australasia and Pacific Islands.

It is not only the container industry that is creating change in ports. The booming cruise liner and tourism industry is having another impact, as berth space is required to handle the massive (and rapid) increase in demand.

Another issue is environmental advances and safety. New initiatives to reduce carbon footprints in shipping are widespread, and the maritime industry as a whole has made a huge change this year by adopting the new International Maritime Organization standards on verifying weights of export containers moving through ports.

Finally, there is a policy issue to consider in terms of the strategic role of shipping, particularly domestic coastal shipping. Are there policy lessons to be learned, from the Canterbury earthquakes in New Zealand, on the strategic value of needing shipping support in times of a national civil emergency?

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