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Submission from the New Zealand Defence Force on Improving Economic Resilience – February 2023 Issues Paper

The New Zealand Defence Force (NZDF) welcomes the opportunity to provide a submission to the New Zealand Productivity Commission's February 2023 Issues Paper: Improving Economic Resilience – enhancing economic resilience of industries and communities to persistent supply chain disruptions. The submission includes a summary of the NZDF key issues and observations and specific answers to the questions posed by the Commission. The NZDF looks forward to further engagement on this critical subject matter.

Introduction

Economic resilience in a world of strategic competition brings into sharp focus the role that supply chains play in enabling the living standards and competitive advantage of New Zealanders. Supply chains and their security – that is, the ability to withstand immediate shocks and enduring events – are essential for maintaining the productivity and wellbeing of the nation.

New Zealand is a geographically remote, but connected trading nation, which if isolated from the world, would face very significant hardship and societal consequences. New Zealand recognises our dependence on the sea/air/digital lines of communication, but rarely acknowledge what this means in terms of security. Commentator George Friedman noted that—

You're not remote. You're a trading country. The problem is you don't control any of your trade routes. I regard you as an animal that has a circulatory system outside of its body. You're highly susceptible to international pressures. You're small and inherently weak. You don't have much influence, and boy you're exposed.¹

A recent study by the McGuinness Institute (*Nuclear War – Are We Prepared?*²) examines the effect on New Zealand of the loss of trade with the northern hemisphere. The study highlights that the shock and enduring impact of a global nuclear event, significantly impacts supply chain access and reliability; that is trade. It might be that New Zealand can grow its own food, but that food is dependent on reliable supplies of fuel, machinery, spare parts, fertiliser, etc – of which a large percentage are imported over non-assured supply chains and vulnerable lines of communications.

The NZDF's role in securing New Zealand incorporates military diplomacy and operations, including securing the lines of communications over which supply chains rely on for access to information, people, commodities, spare parts, equipment and exports. The NZDF's

¹ George Friedman, US geopolitical commentator, interviewed by the New Zealand Listener, August 2015.

² McGuinness Institute, December 2022. *Discussion Paper 2022/03 – Nuclear War: Are we prepared?* Retrieved from mcguinnessinstitute.org/publications/discussion-papers.

interest in supply chains also includes that of a customer. Given that the NZDF is both an enabler and customer of supply chains, the NZDF has a keen interest in ensuring supply chain security and resilience. Supply chain security, refers to the measures and processes implemented to protect the integrity and safety of the supply chain. This includes the physical security of goods and the security of the information and technology used to manage the supply chain.

Key issues for the NZDF:

National Security. New Zealand is facing a more challenging strategic environment than it has for decades. Our national security interests – our sources of security – are under increasing pressure from a range of both longer term trends and more acute developments. Defence Assessment 2021: *He Moana Pukepuke e Ekengia e Te Waka* (the Assessment) described this strategic environment, and identified two principal challenges that will have the greatest impact on New Zealand’s interests both now and over coming decades: strategic competition; and the impacts of climate change. International developments since the publication of the Assessment suggest New Zealand’s strategic environment is changing even more rapidly than the Assessment anticipated.

The NZDF is a critical component of New Zealand’s national security system. New Zealand takes an ‘all hazards – all risks’ approach to national security that brings government agencies together to respond to all risks to national security, whether internal, external, human or natural. This all-of-government approach is encapsulated in New Zealand’s seven overarching national security objectives:

- Ensuring public safety.
- Preserving sovereignty and territorial integrity.
- Protecting lines of communication.
- Strengthening international order to promote security.
- Sustaining economic prosperity.
- Maintaining democratic institutions and national values.
- Protecting the natural environment.

The NZDF contributes to all seven of these security objectives by maintaining military capabilities in a state of readiness to respond to the changing threats to national security.

Defence Capability. The building of personnel, equipment, platforms and/or other resources that affect the capacity to undertake military operations takes time and continual investment. Without this consistent investment, including in the supply chain, Defence capability is undermined. Key aspects of the supply chain for NZDF are:

- **Resourcing** – To operate as a proactive military force requires funding to be provided for personnel, platforms (eg ships and planes), equipment (eg vehicles and rifles), material (eg ammunition and uniforms) and the right information to be available at the right time. The funding provided to date has been underpinned by an efficiency model that has prioritised a tight balance sheet using limited working capital, resulting in a trade-off between efficiency today versus resilience tomorrow. This

trade off was underpinned by an assessment of strategic warning times³ for conventional conflict being extended, beyond general accepted 10 year window.

- **Reliance** – A key consideration for sustaining Defence Capability is that the NZDF uses the same supply chains as the rest of New Zealand. In order to provide a secure supply chain to support the NZDF, a proactive view to supply chain security and supply chain risk management is necessary.
- **Protection** – New Zealand is reliant on lines of communication (LOC) that connect our geographical remote location to the rest of the world. When the NZDF operates to secure the air, sea and information LOC it does so to secure New Zealand's access to the supply chains that underpin New Zealand's economic resilience and sustainability via military escort.
- **Operate** – The role of the NZDF (as a direct result of Government necessity to maintain LOC) is to keep LOCs, especially sea LOC (SLOC), open. This task falls not only to the NZDF, but requires close co-ordination and support with allies, friendly governments, and industry, as well as across government agencies. Given all the players, co-operation and integration planning must be commenced as early as possible, not at the point the shock materialises. Ensuring access to LOC, with its required high levels of co-operation and integration, relies on robust and sustained Defence Capability and the need to support New Zealand trade through proactive Defence diplomacy; a far less visible but equally important activity of the NZDF – diplomatic networks provide access and understanding of our trading partners and assist to manage risk across the global community related to emerging trends.

Global trends impacting New Zealand. Since 2015 the benign international outlook has deteriorated to the point where industrial state conflict in Europe has returned. Our physical location, that once was considered to provide sanctuary, now emphasises our vulnerabilities. The virtual world is a growing arena of competition and acts of conflict through cyber-based activity. Strategic cooperation has been replaced by ever intensifying competition and grey zone operations⁴.

Intersecting with deterioration in the strategic environment, the COVID-19 pandemic has shown how singular events can disrupt what were once considered efficient, robust and resilient supply chains⁵. At the same time, the accelerating impacts of climate change have started to undermine human security and economic certainty across the globe. The cumulative effect is an increasing and shifting demand for material (supplies) and capacity to support a greater concurrency of events as well as breadth and quantity of material. Over dependence on other States, the industrial demands of State on State conflict, limited self-sufficiency, and the growing concurrency and severity of events have all combined to alter

³ Strategic warning time for conventional conflict is the time a country estimates an adversary would need to launch a major attack against it, once the adversary's intent to do so has been established

⁴ Grey zone is a mainly non-military domain of human activity in which states use national resources to deliberately coerce other states.

⁵ Note - The ability to maintain, cope and withstand supply chain problems is about robustness, whereas the ability to recover or bounce back from supply chain problems is about resilience.

the appreciation of many states of their previous supply chain robustness while concurrently highlighting their supply chain vulnerabilities.

The early 21st century **just in time (JIT)** supply chains, whilst cheap and efficient for the consumer, no longer ensure availability so that New Zealand's economic and national security are robust, resilient and protected. From the NZDF point of view, our ability as a Contingent Force to meet the Government's expectations to keep the LOC open is at increased risk of supply chain disruption and failure at the critical moment the shock materialises, impacting the national security and economic resilience.

National security and economic resilience through resilient supply chains. The principal roles of the Defence Force (as set out in the Strategic Defence Policy Statement 2018 and enclosed at the end of the submission questions) are enduring, but are also calibrated to address the Government's priorities and New Zealand's changing strategic environment. These roles have a clear link to ensuring economic resilience for New Zealand which can only be achieved if the NZDF has the appropriate Defence capabilities to deliver a Contingent Force for New Zealand. The NZDF performs this role by:

- planning to mitigate or avoid the build-up of potential vulnerabilities to New Zealand;
- preparing to absorb shocks when they occur; and
- the ability to engineer a swift rebound from shocks.

Availability, Economic Shocks and the Supply Chain: Just in Time vs Just in Case. At the heart of the supply chain resilience issue is the concept of availability of supplies. The broader factors of certainty, trust, threat or profitability are considered when determining the acceptable model to adopt to manage the risks and ensure availability is achieved. **JIT** is a common inventory strategy whereby material/goods are received from suppliers only as they are needed for consumption by manufacture or use. The main objective of JIT is to reduce inventory holding costs (working inventory capital) and increase turnover of stock to avoid funding dead or obsolete stock holdings and its write-off inventory). JIT avoids infrastructure costs associated with large storage sites for large inventories.

As stated previously, the major disadvantage of the JIT inventory strategy is supply chain disruption or shock risk. This disadvantage can be countered by the **Just in Case (JIC)** inventory strategy, which protects against supply chain disruption by holding large inventories on hand (either regional or nationally), but it comes with a cost.

The JIT and JIC strategies can be run in parallel and strengthened through on-shore or near-shore production capacity, increased holdings of critical items (requiring additional investment), and the increased cooperation with trusted partners through the integrated use of common platforms, equipment and consumables; which all open up a range of potential solutions whilst creating the additional benefits of interoperability and shared training methodologies for the NZDF.

Supply Chain Efficiency versus Effectiveness. An efficient supply chain will measure the run rate of inventory and how much is slow/static/dead. A high rate of slow/static/dead is viewed as wasted capital and therefore as being inefficient. An efficiency focussed system (such as JIT) will seek to have only just enough available platforms and equipment to support the planned usage rate, including wear and tear and occasional operational damage or loss. The efficient system best supports a benign world of discretionary government security choice e.g. the deployment of the NZDF on peacekeeping operations.

An effectiveness focussed system (JIC) would hold available platform and equipment to support contingent capability and capacity against events and threats where the Government's choice to participate maybe reduced or removed. This could be seen as inefficient use of capital or a variance to the steady planned life of equipment and assets replacement funding model thereby creating a perception of over investment during a benign environment period in which the Government has choice around involvement in conflict.

Defence Supply Chain. The Defence supply chain, as a supporter of military readiness and operations, has faced recent challenges to its resilience as the disruptions to global and domestic distribution systems since COVID-19 have negatively impacted both materiel (supply chain) and personnel (suppliers) movement leading to uncertainty of supply and cost increases. This disruption has exposed three underlying factors that contribute to the lack of resilience of the NZDF supply chain:

- A disproportionate reliance on international suppliers and their supply chains, and the inability to trace components through those supply chains.
- A Reliance on single suppliers for key items.
- A reliance on supply chain efficiency over effectiveness.

Supply Chain Security. Supply chain security is crucial for protecting the NZDF's operational and business capability, reputation and financial stability. It involves identifying and mitigating risks and vulnerabilities throughout the entire supply chain, from the sourcing of raw materials to the delivery of finished products to the NZDF; whether for humanitarian, security or combat operations. It also includes protective security measures, such as security vetting of all members of the NZDF and relevant contracted service providers, security protocols for transportation and storage, and control measures to protect the NZDF and contracted companies against cyber threats.

Supply Chain Risk Management. Supply chain risk management requires continual investment and revision to ensure that the NZDF has sufficient systems and processes in place to consistently and reliably identify and manage supply chain risk, any incidents that may occur, including critical information loss, supplier failure or shipping delays and disruptions. The risk management outcome must align with best practice, as well as the expectations of the New Zealand Government and NZDF stakeholders (both governmental and non-governmental). The cumulative level of risk exposure to the NZDF and its operations from the NZDF supply chain and the efficacy of the current set of risk management controls makes determining the risk to the NZDF supply chain problematic.

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Further, the NZDF leadership have limited funding options to address working capital requirements and associated costs (eg infrastructure). To overcome this, a range of investments are required, including developing and enacting policy frameworks so that the Government can better understand and manage supply chain risk both within and external to the NZDF.

Q1 – What supply chain disruptions and trends are the NZDF worried about?

The Productivity Commission outlined a number of supply chain disruptions in its initial workshop in November 2022. The NZDF acknowledges the takeaways from the discussion. In this response we explain how the disruptions outlined immediately below are likely to impact the NZDF supply chain.

- Geopolitical, climate and other risks will continue to disrupt New Zealand supply chains.
- Disruptions will be such that calls for public intervention will increase, not decrease, meaning existing responsibilities for adaptation and transition will likely need reform.
- Trade and supply chain disruptions are increasingly political, and New Zealand will struggle to influence events.
- Geography could matter more over time. The world was never 'flat'. New Zealand needs to think about how it connects to the world, particularly through LOC (eg shipping).

A consequence of the disruptions outlined above is that there are extended lead times for equipment and commodities (both production and delivery). Suppliers – as was demonstrated during the COVID-19 pandemic response – are either choosing:

- not to produce what the NZDF requires (as factory lines produce other items that are in higher demand, or are more profitable) or
- are producing what the NZDF require but suppliers are providing those products, etc first to their production site host nation or other clients (industrial or countries) who are much larger (ie more important markets) and at a higher premium.

There is also increased demand for specialised military equipment, as many countries around the world scale up their Defence spending to maintain their national security. As such New Zealand is competing for equipment on an international basis, and even if our partners are able to secure military equipment, there is no guarantee that New Zealand will be able to access this equipment to secure our own national security; a situation that New Zealand experienced early in World War II.

Even if equipment can be procured, the ability to get it to New Zealand is a challenging proposition, as sea freight capacities have reduced as shipping routes are made more efficient and re-routed to deprioritise or exclude New Zealand.

Sole supplier requirements driven by commercial efficiency for whole of life costs, (which combine the initial purchase, through life support, repair parts and in some case aligned commodities procured through a sub-contractor) creates significant risk to New Zealand, as a small customer on the other side of the world. Equipment produced at scale on the other side of the world may seem more attractive/efficient through whole of life costing models, however, the reality of not procuring a similar/same item in New Zealand (if available) or Australia results in significant effectiveness deficiencies when items cannot be procured or delivered when they are really needed.

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The following list is a summary of the supply chain risks that the NZDF is currently facing:

- A reliance on international suppliers and supply chains has been impacted by border restrictions and reduced freight services capacity, limiting the ability to import spares, stores and secure the support of Original Equipment Manufacturers (OEM); including support for deployed platforms and equipment (ships, aircraft and weapon systems).
- Global disruption to travel and freight resulting in limited access to OEM expertise and delays in materiel delivery timelines with associated escalation in costs.
- The restricted ability to ascertain critical direct suppliers (OEM and suppliers) from higher assemblies down to sub-component level resulting in limited capacity to trace any one particular item or its sub components.
- Vulnerabilities in the fragile and unpredictable international Munitions Supply Chain (for the NZDF and to deployed forces undertaking combat operations) has increased the risk for the NZDF within its the current ammunition assurance and supply systems.
- Vulnerabilities to supply chains due to a strong reliance on suppliers/service providers from Europe and the United States (US) which involves complex subcontracting arrangements, and inherently longer lead times due to geographical distance. The COVID-19 pandemic highlighted the need for border restrictions during a shock event or environment. These vulnerabilities collectively impact on overall supply chain responsiveness and timeliness in supporting outputs.
- A reliance on preferred suppliers to the NZDF, and a requirement to procure proprietary equipment (and after sales service) from OEMs has led to a dependence on single suppliers of goods and services for various items, with no alternative supplier available, or contractually allowed, in the event of disruption.

Q2 – What is the NZDF (and Defence Industry) doing or planning to do to address Supply Chain concerns?

Defence Policy Review

Defence recently undertook a formal assessment of the global strategic environment and its implications for New Zealand and our region. It concluded that New Zealand's strategic environment has become substantially more challenging in the years since 2016 when the last Defence White Paper was issued, and that this trend is likely to accelerate in coming years.

The assessment proposed New Zealand's defence policy settings be reviewed to ensure Defence is best placed to support the ongoing protection and promotion of New Zealand's interests. It recommended that New Zealand's defence policy approach should shift from a predominantly reactive risk management centred approach to one based on a more deliberate and proactive strategy with explicit and prioritised policy objectives. A comprehensive Defence Policy Review, currently underway and being led by the Ministry of Defence, presents the avenue to explore such a policy shift and plan for its implementation across Defence, if desired.

As part of the review process, Defence will establish a series of factors with which to develop the policy and strategy settings, and force options. These force options could include military value; relative cost; portfolio achievability; balancing trade, foreign policy and defence interests; assistance to the civil power; and Te Tiriti o Waitangi obligations. Work across the national security sector will also be an important input into the review process to ensure alignment where appropriate.

Defence Budget – Balance sheet versus working capital

Although this inquiry is not directly relevant to Defence Budgets, it is fair to say, resilience costs, so by underspending or under-investing in the industry that is most likely going to provide contingency and therefore resilience in times of realised risk, New Zealand is further degrading its ability to first shield itself from immediate consequences of the risk realisation, cope with the induced stresses and ultimately successfully overcome or rebound effectively.

New Zealand would be naïve to believe that having friends will ensure the resilience of our supply chain, especially if items are stored offshore. Access cannot be guaranteed (through national reprioritisation or through ineffective lines of communication). Therefore there is a requirement to balance efficiency versus effectiveness so that equipment and critical commodities are available to provide supply chain resilience.

This necessary resilience can be provided by either rebuilding elements of industry in New Zealand or securing equipment and commodities on-shore, not near-shore nor friendly-shore-, noting that even a stretch of water as narrow as the Cook Strait can provide strategic and operational challenges if there is insufficient (or ineffective) shipping assets to maintain sea lines of communication or an active threat exists, such as the 228 mines laid in the Hauraki Gulf 13/14 Jun 1940 by the German raider HKS Orion.

Sufficient on-shore equipment and stocks will assist in the mitigation against supply chain vulnerability and should 'buy' sufficient time so that New Zealand can either pivot resources, grow capacity, adjust its way of life, or receive support from our partners, or most likely a combination of all.

Learning and Working with Our Partners

Based on recent geopolitical concerns our Defence Partners, namely the US, UK, Canada and Australia are all investing heavily in their national security. Through various Executive Orders, Government Taskforces and Strategic Reviews, decisions have been made to reduce vulnerability in their defence industry supply chains by directing industry to pivot and produce critical componentry on-shore. Regardless of the investment made, the current reliance on raw materials still means that unless these materials are stockpiled, vulnerabilities may still exist. This combined with the fact it will take up to a decade for industry to pivot effectively results in a time of heightened vulnerability, as threat states possibly perceive weakness/opportunity during the lag between policy decision and meaningful results.

New Zealand can learn from what our partners identify through their various reviews, but the reality that is our small size and geographical remoteness except for Australia will impact options. The relative closeness of Australia, it's industrial base and the opportunity of its defence investment provides can if aligned correctly reduce risk, exposure and vulnerability of new NZDF platforms, equipment and commodities (e.g. ammunition) support, and create a level of independence to secure what we need to provide for ourselves with the required level of resilience and time before our partners may be able to help us.

New Zealand will work with our partners but the likelihood is that we will share the same geopolitical issues and linked vulnerabilities, and we might not be able to just 'plug in' to our partner's supply chains immediately. As such there needs to be a level of assurance premium paid, so that New Zealand can maintain its way of life (living standards) whilst the country reacts to the shock of the event and rebounds to a new future state.

Ongoing obligations to the Pacific

One concern that does significantly impact the NZDF is the fact that New Zealand has an obligation to support our Pacific neighbours. Further, the Realm of New Zealand⁶ with its three autonomous jurisdictions (New Zealand includes the dependent territory of Tokelau and the Antarctic Territory claim), means New Zealand has Defence and Foreign Affairs obligations that stretch to Equator. This is a key tenant of our foreign and defence policy, as such the NZDF needs to ensure that it has the required capabilities to provide timely and effective support to our Pacific neighbours when they are facing times of vulnerability, whilst also ensuring it can support domestic requirements simultaneously.

⁶ New Zealand, Cook Islands, and Niue

Q3 – How can the government help to enhance the resilience of the NZDF to supply chain disruptions?

Policy ideas to persistent supply chain disruptions

Whole of Government approach/rules to Supply Chain Security that should encompass, Foreign Ownership and Influence, Country of Origin and Data Sovereignty.

Review balance sheet versus working capital finance policy. Recognise NZDF as a contingent force that needs to be resourced and have assurance of access to resources that deliver material and people, acknowledging that the resourcing of the NZDF could be seen as an assurance policy that when security events occur a security reaction is available.

Review (or at least assist with the interpretation) of Procurement Rules to enable effectiveness rather than just efficiency. Procurement Policy could be reviewed to include more flexibility to use opt outs for military and essential security interests. These mirror exceptions negotiated in New Zealand's accession to the World Trade Organisation Government Procurement Agreement. Further to this, NZDF should engaged with MBIE (and vice versa) on the Procurement 2.0 Programme (Procurement for the Future), and stress the benefits of working together with other similar security Government Agencies such as New Zealand Police, NZ Custom, and Fire and Emergency New Zealand around core common equipment and commodity access and support.

New Zealand should consider opportunities on leveraging treaties such as the Closer Economic Relationship and Closer Defence Relations with Australia. Consider other commercial/military levers – including foreign military sales, and/or closer collaboration with partners e.g. piggybacking other Armed Forces' procurement and contracts.

Stockpiling materials

The NZDF manages equipment and stocks to meet an immediate need to support operational deployments. This could be further leveraged (and enhanced) to support the wider population in times of greatest vulnerability.

Finance policy would need to be adjusted to support a JIC as opposed to a Just in Time mind set. This is where working capital needs to trump the balance sheet focus so that resilience is embedded into how we do things in New Zealand. This would enhance the supply chain and make it more relevant to beyond the benign environment.

Previously New Zealand has selected policy and made commercial decisions that have undermined our supply chain resilience. We currently do not hold the recommended days of fuel to keep New Zealand operating in times of interrupted supply. This was proven a weakness when one batch of Aviation Fuel was of poor quality, forcing rationing for airlines. If we don't have the resilience built into our current supply chain to mitigate one batch of low quality fuel then how can we trust that we can meet the effects of a higher order disruption? Note that the NZDF also needs to use fuel to fly planes, sail ships, drive trucks and generate mobile power. We use the same fuel as the public – so our contingent force with all the equipment and trained people in the world won't be able to support New

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Zealand through challenging times if we don't have access to commodities such as fuel. This fuel is also essential to powering many SWP countries.

Viable transport options

Sea lines of communication with Australia and Pacific Islands and Coastal shipping opportunities. The public owns 51% of Air NZ, owns 100% of rail and rolling stock (through Central, Regional and Local Government). Should it also own, or part-own shipping assets (not just ferries across the Cook Strait) to connect to Australia and the Pacific. Noting NZ Navy assets are not viable or sustainable freight options if military operations are being conducted to protect sea lines of communications or off shore deployments.

Air lines of communication were exposed during COVID times as almost all passenger aircraft stopped flying to New Zealand. It took a Government subsidy (and significant loan facilities for the state owned Air NZ) to incentivise airlines to keep flying to NZ. If the Government didn't have a majority ownership in Air NZ then New Zealand access to critical pharmaceuticals not produced within New Zealand, would have been severely compromised.

A Government owned, Strategic Airlift capability and capacity that is built for cargo purposes would provide additional resilience to our supply chain. Although the RNZAF is in the process of replacing its aging Hercules aircraft, the new Hercules are not considered a long range or large capacity platform. The aging B757 aircraft is also due replacement, with viable options such as the A321 (same as Air NZ) or Airbus A330 MRTT (same as the RAAF) able to provide a further reach to our partners to enable a level of owned self-reliance, including Realm of New Zealand locations.

Potential downsides and conflicting objectives

The resounding conflict is the balance between efficiency and effectiveness. Efficiency policies (such as JIT) mean that as an industry and country New Zealand can use its limited financial resources to provide a wide/thin layer of assurance across all industries for all possible eventualities (or nil resilience for any eventuality). Alternatively New Zealand can prioritise what the first 30, 90 and 180 days may look like post event and provide a level of assurance so that New Zealand can mitigate against the most likely and the possible events, set the expectations with all New Zealanders in advance of the event (so that they can prepare as well), and resource the Agencies that can provide a level of assurance in times of vulnerability until New Zealand can either pivot resources, grow capacity, adjust its way of life, or receive support from our partners, or most likely a combination of all

Any evidence of how trade-offs play out in practice

The trade-off being for Defence is the balance of limited overall Government investment in people, platforms, equipment/commodities and then sustaining these so that capabilities can provide the desired effect and provide supply chain security, supply chain resilience, national security and ultimately national economic resilience.

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For NZDF this is an enduring battle to balance this trade-off. Investment in platforms (ships and planes) have been made but then costs have ultimately escalated resulting in a trimming of additional equipment (and spares), infrastructure and/or training. This large capital investment has resulted in less operational expenditure budget being available, resulting in procurement decisions that prioritise efficiency over effectiveness. The third part of the triangle in personnel expenditure (i.e. paying people so they can fly the planes). The defence budget is lean by NATO member requirements and Pacific region partner spend, and decisions need to be made around what is a priority so that the NZDF can meet the expectations of the Government and the population of New Zealand (in good times and in bad). Ultimately, this could be best describe as the 'NZDF has to be at its best when the world is at its worst'. To be at its best, requires a supply chain that has resilience to deal with the shock and enable the rebound.

Q4 – What should the Commission study to learn more about the economic resilience of industries and communities?

Defence Policy Review process – as a champion to ensure that Supply Chain Resilience is maintained as a national priority area so that Defence can sustain its capabilities into the future and provide the contingent force expected by the New Zealand Government.

Be aware of the NZIER study into value proposition of the military (similar to Oxford Economics study into the value proposition of the British Army)

Australian Productivity Commission findings on Vulnerable Supply Chains Study

<https://www.pc.gov.au/inquiries/completed/supply-chains/report/supply-chains.pdf>

<https://www.pc.gov.au/inquiries/completed/productivity/report>

OECD Findings – Report for the United Kingdom chairing of the G7

<https://www.oecd.org/trade/resilient-supply-chains/>

US Supply Chain Risk Management Taxonomy



SCRM

Taxonomy_Version 1

McGuinness Institute *Nuclear War – Are We Prepared?*



Nuclear War - Are
We Prepared?

Further information

The NZDF contributes to all seven of these security objectives by maintaining military capabilities in a state of readiness to respond to threats to national security.

Principal Role of the NZDF

The principal roles of the Defence Force are set out in the Strategic Defence Policy Statement 2018, are enduring but are also calibrated to government's priorities and New Zealand's changing strategic environment. These roles are to:

- Defence New Zealand's sovereignty and territory and contribute to protecting critical liens of communications.
- Contribute to national, community and environmental wellbeing and resilience, and whole of government security objectives.
- Meet New Zealand's commitments to its allies and partners.
- Support New Zealand's civilian presence in the Ross Dependency of Antarctica, and work with other agencies to monitor a respond to activity in the Southern Ocean.
- Conduct a broad range of operations in the South Pacific, including leading operations when necessary, to protect and promote regional peace, security and resilience.
- Make a credible contribution in support peace and security in the Asia-Pacific region including in support of reginal security arrangements.
- Protect New Zealand's wider interests by contributing to international peace and security and the international rules based order.
- Contribute to advancing New Zealand's international relationships.
- Work with other agencies to monitor and understand New Zealand's strategic environment.
- Be prepared to respond to sudden shifts in the strategic environment.

The following definitions help outline the links between National Security and Economic Resilience:

Economic Resilience – the capacity of industries and associated communities to anticipate, prepare, absorb, recover and learn from supply chain disruptions. Economic resilience includes being able to access from overseas, through functional lines of communications, include skills knowledge and talent required to maintain the industry base.

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Supply Chain Resilience – The capability of supply chains to respond quickly to unexpected events, adapt to changes and ensure continuity of operations after a disruption. Resilience is the outcome of proactive Supply Chain Risk Management and Supply Chain Security.

Supply Chain Security – The application of policies, procedures, processes, and technologies to ensure the security, integrity, and uninterrupted flow of products while moving through the supply chain. Examples include the ability to protect supply chains from cyber infiltrations and the introduction of counterfeit material.

Supply Chain Risk Management – A process of proactively identifying supply chain vulnerabilities to potential disruptions and implementing mitigation strategies and actions to ensure the security, integrity, and uninterrupted flow of products as risks are found, or disruptions occur.