Submission for Inquiry into the Implications of Severe Weather Events on the National Regional, Rural, and Remote Road Network

Australian Logistics Council (ALC)

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ALC is the peak national body representing major companies participating in the freight logistics and supply chain industry. ALC's policy focus is on delivering enhanced supply chain productivity, sustainability and resilience with workforce and community safety a top priority.

Our country's supply chains are intricate systems that drive economic prosperity and support social well-being. As we witness increasing frequency and severity of extreme weather events, it becomes evident that disruptions to supply chains are becoming more frequent and widespread. These disruptions not only affect the transportation of goods and services on Australia's roads, but have far-reaching consequences on the entire supply chain network. These disruptions can result in prolonged road closures, rail disruptions, isolation of regional communities, and shortages of essential goods, which could lead to inflated prices, empty shelves in supermarkets and an increased cost of living.

The issue is how do we ensure uninterrupted freight delivery in our export, domestic and import supply chains. It is clear that extreme climate events are forecast to continue and therefore to achieve supply chain resilience Australia needs to ensure alternative routes and all transport tools and methods become available. The supply chain system is complex and resilience cannot be achieved by focussing on only one isolated part of these highly interdependent systems.

What do we need to do?

- National Freight and Supply Chain Strategy
- National Approach to Emergency Response and Creating Supply Chain Resilience
- Improved Transport Hazard Warning Systems and Response Readiness
- Civil Response Workforce Considerations
- Informed Decision-Making
- Effective and Consistent Urban Planning Schemes and Regulations.

National Freight and Supply Chain Strategy

The National Freight and Supply Chain Strategy (NFSCS) represents a pivotal step towards enhancing the efficiency of supply chains through a collaborative national approach. By prioritising freight network performance, connectivity, and resilience, this strategy acknowledges the interdependence of various stakeholders and the need for a national approach to freight – one that transcends borders and transport modes to create the environment to deliver significant productivity, safety and environmental reforms.

Australia's first NFSCS was released in 2019, setting goals and targets and outlining the delivery of a nationally coordinated and well-planned freight system up to 2024.

The need for a coordinated national approach to freight becomes even more crucial in light of the evolving challenges Australia has faced in recent years, such as the global pandemic, geopolitical uncertainties impacting international trade, devastating bushfires in 2020, and frequent extreme weather events. On 9 June 2023 the

Infrastructure and Transport Ministers' Meeting (ITMM) agreed to bring forward the review of the NFSCS by 12 months to this calendar year to incorporate the lessons learnt.

A successfully implemented NFSCS will enable a more efficient and adaptable system that can mitigate the impacts of severe weather events, safeguard the continuity of essential goods and services, and minimize disruptions to the economy and communities.

National Approach to Emergency Response and Creating Supply Chain Resilience

The absence of a single, overarching national approach to identifying and addressing gaps and emerging issues in the freight transport context poses a significant risk to Australia achieving supply chain resilience. Currently, different states, territories and local governments prioritise the delivery of different 'essential' types of cargo and commodity groups during emergencies. They also employ a diversity of approaches to measure risks like flooding and prioritize different modes of transport based on geography and economic development history.

To enhance the opportunity to create supply chain resilience, it is imperative to establish a cohesive national framework that promotes collaboration and coordination across all jurisdictions. This framework should ensure consistency in emergency response strategies and facilitate effective and consistent communications and resource allocations.

Improved Transport Hazard Warning Systems and Response Readiness

In order to effectively tackle the operational challenges presented by severe weather events, it is imperative to implement improved transport hazard warning systems and response readiness measures, and to share this information with all parties involved in the logistics chain operations. This entails consistent and reliable communications between all relevant stakeholders (e.g. retailers, freight owners (manufacturers), freight logistics and freight transport operators) across multiple mediums of communication. For example:

a. Establishment of a dedicated disaster hotline or communication channel that ensures timely advice reaches critical stakeholders. This channel should include early notification of key contacts responsible for commanding, controlling, and coordinating natural disaster responses, ensuring consistent and up-to-date messaging.

b. Either real-time information for the rerouting of scheduled routes be made available (as seen in the Heavy Vehicle Access Management System[1]), or activation of pre-approved detour routes accompanied by clear guidelines on road capacity, vehicle restrictions, and expected traffic volumes. These detour routes should be easily implementable to minimize disruptions and facilitate the efficient movement of goods.

c. Facilitating access to emergency road corridors, usually reserved for state emergency service workers, for transport service providers moving critical essential freight. This will enable the uninterrupted delivery of essential supplies, averting potential shortages and freight backlogs.

d. Additionally, it is crucial to coordinate and mobilize alternative freight transport systems, including rail, sea, and air, to alleviate pressure on secondary roads and detour routes. This collaborative effort will help prevent supply shortages and address any potential freight congestion resulting from severe weather events.

Civil Response Workforce Considerations

However, this demand places a significant burden on them, leading to mental health and wellbeing issues, such as burnout, and a slower return to work. The impacts of such crises also reverberate across the entire supply chain, with personnel facing increased pressure to ensure community support and safety. The Covid pandemic exemplified how supply chains managed to hold together when individuals went "the extra mile" to keep communities adequately supported.

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[1] Tasmanian Department of State Growth (State Growth) has developed the Heavy Vehicle Access Management System (HVAMS) as a best practice approach to determining access for the heavy vehicle sector

Nevertheless, the disproportionate reliance on the transport and logistics sector during crises leaves fewer personnel to handle essential logistics tasks, further straining supply chains. To address these challenges more effectively, the government should broaden its support programs beyond transport operators and logistics professionals. Empowering and upskilling the entire community to respond efficiently and extending training and authorisation oof personnel beyond the traditional roles will create a more resilient response network and ensure a better-prepared approach to severe weather events.

To achieve this, investing in comprehensive training and certification programs for community members is crucial. This will establish a cohesive response network capable of mitigating the strain on operators, alleviating the burden on supply chains, and promoting overall preparedness and efficiency in handling critical situations. By distributing responsibilities and support more evenly, we can safeguard critical infrastructure and ensure a more effective response during times of crisis.

Enhancing Infrastructure Resilience through Informed Decision-Making

Scenario planning and accurate data analytics play a crucial role in guiding investment decisions and ensuring infrastructure resilience for future events. At the core of this process lies the need for comprehensive national data, encompassing hazard and disaster risks, as well as information on road assets and networks.

Currently, the availability of hazard and risk data is fragmented, lacking coordination and standardization across states, territories, local government and various organizations. This results in multiple formats and limited accessibility, undermining effective coordination of place-based and network-level planning, as well as response and recovery efforts. Insufficient evidence regarding the scale of risks, their impacts, and the costs associated with addressing them further exacerbates these challenges. Consequently, there is a tendency towards reactive responses instead of proactive measures to mitigate both short- and long-term risks to infrastructure networks.

Nevertheless, significant efforts are already underway to improve data and capabilities in key areas such as road asset management and assessing natural hazard and disaster risks. Prominent examples include the TraNSIT model and the commendable work conducted by ARRB (NTRO)[2].

To enable informed decisions on risk reduction options and approaches, it is important to standardize and share data regarding disasters, hazards, highlighting the interdependency of assets, transport modes and networks. By adopting a data-driven decision-making approach, we can enhance the resilience of infrastructure systems and ensure proactive measures are taken to address emerging risks.

Effective Urban Planning in Supply Chain Resilience

Effective urban and regional land use planning is required across Australia's 537 jurisdictions. Land use planning plays a vital role in ensuring the efficiency, productivity, sustainability, and resilience of supply chains and freight logistics, but Australia falls short in this capability. The availability of land in the right locations, and access to essential infrastructure such as roads, rail and multimodal transport facilities is required to achieve freight efficiency and manage the cost of transporting freight. It is imperative to adopt a long-term perspective and avoid poor planning decisions that limit the effectiveness of our supply chain systems.

The findings of targeted university research most recently conducted by QUT in 2022 unequivocally revealed not one of Australia's urban planning undergraduate or post graduate courses accredited by the Planning Institute of Australia (PIA) contains any formal education about supply chains, freight logistics, freight transport, and import/ export/domestic trade operations, and therefore the likelihood of such professionals being able to create supply chain efficiency, productivity, resilience, and sustainability is limited. These land use planning courses do however all focus on social planning, transit transport, active transport (bicycle riding and walking) and amenity - the enjoyment of space.

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[2] Intelligent Pavement Assessment Vehicles (iPAVE)

The research clearly shows a major gap exists in awareness and deep knowledge about the fundamental economic driver supporting our society's way of life – i.e., supply chains and freight logistics. Without effective supply chain policy and planning the cost-of-living increases, as do the number of trucks, truck drivers, emissions, and fuel. It is essential this gap is overcome to support the competitiveness of our import, export and domestic supply chains.

Establishing a comprehensive understanding of the supply chain and freight logistics complexities is essential to inform land use and infrastructure planning, allowing us to develop a proactive approach to mitigate potential disruptions and ensure the continuity of critical supply chains, even in the face of severe weather challenges.

The rebuilding of infrastructure in the aftermath of a disaster provides a valuable opportunity to not only restore functionality but also to enhance the overall resilience of the affected communities. Investing in infrastructure betterment allows us to reduce risks and vulnerabilities associated with future disasters, providing continuous levels of service, reducing risks and economic impacts and reducing future repair and maintenance costs.

This requires looking beyond substituting like-for-like infrastructure assets – which given the severity of Australia's 2023 floods – cannot be afforded. Instead, pursuing a mature understanding of supply chain and freight logistics systems and upgrading and integrating our freight transport infrastructure (as modes within one system) is both an important opportunity and need. With a mature understanding of supply chains and their interdependencies, plans can be developed to incorporate disaster risk considerations, anticipate future needs, adopt advanced technologies, and utilise sustainable and high-performance materials in prioritised road networks. Such measures contribute to long-term functionality, promote holistic risk management, and create a stronger foundation for a sustainable future.

The implications of severe weather events on Australia's regional, rural, and remote roads cannot be viewed in isolation as the road network is one part of a highly complicated and interlinked system of economic activity. The ALC welcomes the Committee's consideration of the information contained in this submission.

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