



Arid Lands Environment Centre and Environment Centre NT Submission on the Territory Wide Logistics Master Plan

The Arid Lands Environment Centre (ALEC) is central Australia's peak environmental organisation that has been advocating for the protection of nature and ecologically sustainable development of the arid lands since 1980. The Environment Centre NT (ECNT) is the Top End's peak community sector environmental organisation, working to protect the environment since 1983.

ALEC and ECNT welcome the opportunity to contribute to the Logistics Master Plan for the Northern Territory. Developing a Master Plan for logistics across the Northern Territory is fundamental to maintaining economic stability, supporting social wellbeing and facilitating sustainable development.

As a key pillar of the economic development plan, a strong logistics plan should ensure supply chains and infrastructure nodes are resilient to the impacts of climate change. Logistics will have a key role to play in decarbonising the economy and climate change adaptation planning.

Background and objectives

The broad intent of the objectives in the Master Plan are supported by ALEC and ECNT but we submit that they will not be realised unless they acknowledge the links with climate and environment. Infrastructure and logistics in the NT are subject to unique challenges compared to other states and territories, as economic factors are dependent on climate and environmental variables. The NT is forecast to be significantly impacted by climate change.

Extreme climatic variability characterises the economic and social dynamics of the arid zone and this should inform the direction of planning for logistics. The NT's Coastline is exposed to increased sea level rise, storm surge inundation and potentially more damaging cyclones, resulting in damage to significant NT infrastructure.

Productivity will only be safeguarded by improving resilience and reducing sensitivity to climate change in supply chains and key infrastructure.

The objectives underlying the Master Plan should include:

- The need to instill resilience and reduce vulnerability to the impacts of climate change.
- An acknowledgement of the threat of climate change to economic stability and provide for adaptation as an opportunity for infrastructure development.

- The need to climate proof supply chains by investing in improved adaptive capacity.
- An acknowledgement of the role of logistics in facilitating the transition towards a low carbon economy.

Climate proofing the logistics network

The Department of Planning, Infrastructure and Logistics should dedicate resourcing to identifying the key climate threats to infrastructure, supply chains and logistics hubs and processes for addressing and managing those threats. Each sector of the economy will be impacted by climate change, so it is important that there is a departmental imperative to investigate methods for increasing climate resilience while also understanding there is opportunity in investing in adaptation planning.

There are three key ways that climate change relates to logistics:

- Physical risks for transport infrastructure both direct and indirect: higher temperatures and increased solar radiation, rising sea levels, increases in storm severity and extreme flooding events, extreme winds and lightning strikes. These physical risks will vary geographically, however owners and operators must be mindful of the consequences of those impacts on infrastructure.
- Contribution to greenhouse gas emissions: Transport and freight contributes a significant portion of the total greenhouse gas profile for the NT. Emission abatement in the transport industry will therefore play a key role in the ongoing development of climate policy in the NT.¹
- Facilitate the transition to a low carbon economy: The implementation of renewable energy policies, carbon abatement programs and diversified agricultural systems will require transport intensive activities. Transport will have a key role to play in the sustainable development and it is important those networks cater for new and emerging green industries. There will be a shift in logistical activity as the energy supply system is re-engineered.²

Economic strength through logistics will not be guaranteed by efficiency and cost competitiveness alone. Logistical networks must prove responsive to identified climatic threats and be based on the principles of ecologically sustainable development, including the need to develop the best available technologies. Climate proofing systems going forward will prove cost competitive in the long term. The latest available climate change projections for the Northern Territory should be a key factor in key infrastructure decisions.

The NT Government is in the process of developing a Climate Change policy framework, so this Plan should incorporate that imminent policy reality.

¹ Maddocks, "Climate Change and the Transport Sector: Are we travelling in the right direction?" November 2010

² Alan McKinnon, "Adapting Logistical Systems to Climate Change: The Challenges Ahead" Kuhn Logistics University, Germany. *Outlook on the Logistics and Supply Chain Industry 2013*.

Sectoral challenges

Adaptation in various industries, especially agriculture will require a logistical response. Consider the market volatilities in the pastoral industry in the NT. Pastoral productivity is projected to decrease under climate change through more extreme droughts and the spread of disease and pests. The recent closure of the Livingstone Beef abattoir and the national politics on live export are a clear example of market volatilities which will have obvious implications for the future of infrastructure planning in agriculture.

On the other hand, diversifying the agricultural industry and carbon abatement will provide opportunities for investment and growth. The need to improve food security for central Australia is another opportunity for local economic development that will require changes in supply chains. These opportunities will require logistical responses that the Master plan should acknowledge in order to create a regulatory framework that facilitates necessary change rather than impede it. The cost of climate proofing for companies will need to be weighed against the costs of suffering logistical disruptions.

While the policy attention devoted to climate change and infrastructure is limited, this is not suggestive of the level of policy attention it deserves. ‘Adaptive logistics’ is an emerging policy priority that outlines the modifications that will be required in logistics systems to adjust to the effects of climate change.³

It is important that resources are committed to research and development to better understand those linkages to climate proof supply chains, freight corridors and logistics hubs. Climate change will only continue to grow as a corporate, social and political priority and is therefore predicted to become the main driver of logistical change. This is because of the key role logistics will play in decarbonisation and climate change adaptation.

Conclusion

The Territory Wide Logistics Master Plan provides a key planning instrument to guide service provision and economic stability for the Northern Territory. While it outlines a comprehensive plan to maintain supply chains and explore options for economic growth the plan should also anticipate the impact of climate change on infrastructure, service delivery and supply chains.

It is vital that the plan facilitate the development of adaptation planning that improves resilience to the impacts of climate change and reduces vulnerability. Only through acknowledging and addressing climate change through mitigation and adaptation that logistics will be capable of safeguarding the economic stability of the NT into the future.

³ Alan McKinnon & Andre Kreie, “Adaptive Logistics: Preparing Logistical Systems for Climate Change” Paper presented at the Logistics Research Network Conference in Harrogate, 8-10 September 2010<
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.408.7740&rep=rep1&type=pdf>>