

TERRITORY-WIDE LOGISTICS MASTER PLAN 2020

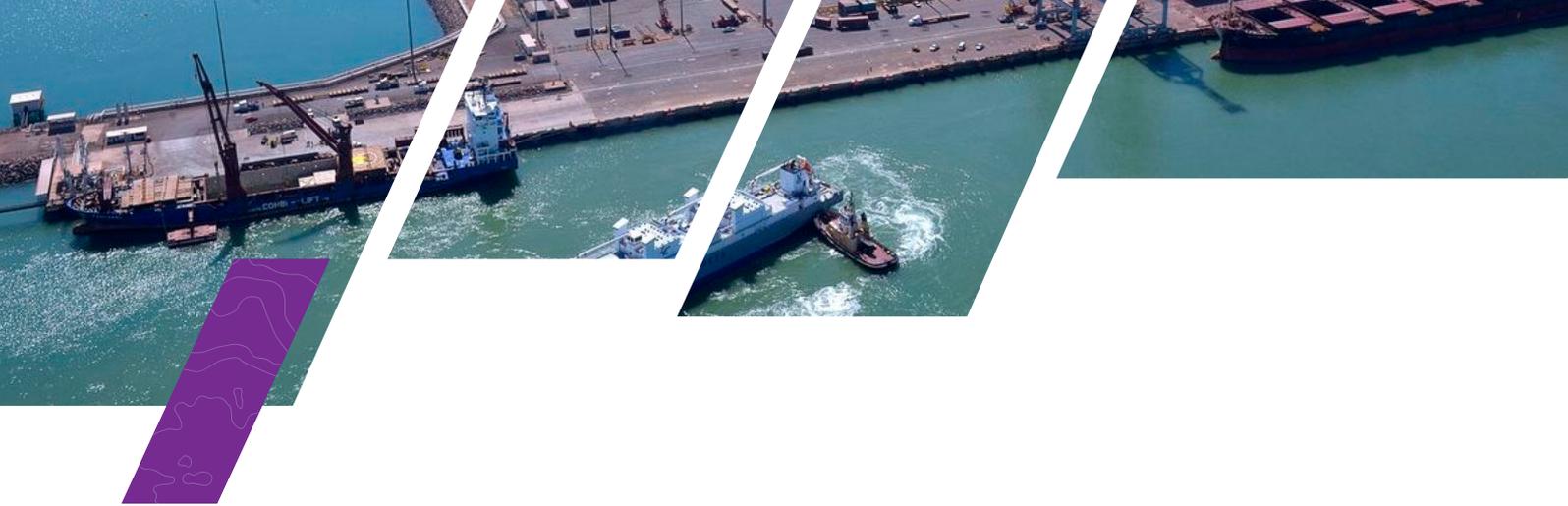






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INTRODUCTION

The efficient movement of freight is a critical component of building the Territory's economy, better servicing the Territory's remote communities, and growing the attractiveness of the Territory as an investment destination. To operate effectively, our logistics networks need sound planning, the right infrastructure and appropriate regulation.

The Territory has resource rich regions, developing primary industries, a strong defence presence and an emerging supply and service sector. Our industries rely on efficient freight and logistics networks to remain competitive with, and provide access to international and domestic markets.

Businesses and consumers are dependent on logistics networks both within the Territory and in other jurisdictions for the supply of goods and to access markets. Efficient logistics networks can help to keep down costs of business inputs and the cost of living for Territorians.

As the population and the economy grows and diversifies, the Territory's freight task and logistics requirements will continue to grow and change. More business, trade and investment means stronger growth, more jobs, higher incomes and better living standards.

The Territory has capacity within its logistics networks, which are not currently constrained by congestion and the first and last mile issues encountered in other states. It has interstate highway connections, a growing port, air and rail linkages to markets. However, with 75 per cent of all roads unsealed, there remains much to be done to maximise freight and logistics networks.

The Territory-wide Logistics Master Plan (Master Plan) provides a blueprint to guide future government prioritisation (investment,

policy and regulation). Government and industry must work together to ensure that freight and logistics networks are operating safely, reliably and efficiently.

About 50 per cent of the Territory's land and 80 per cent of the coastline is inalienable Aboriginal freehold land. Other areas are also subject to native title rights. It is crucial that government and the private sector partner with Traditional Owners to ensure transport and logistics infrastructure and services are optimised, improving the lives of all Territorians throughout our remote and regional centres.

This Master Plan is linked to the NT Government's Economic Development Framework (EDF), Infrastructure Strategy and 10 Year Infrastructure Plan and builds on the consultation undertaken through the previously published Master Plan Discussion Paper. Main themes from this consultation process are addressed in the Master Plan and have been considered in the development of the priority actions.

The Territory-wide Logistics Master Plan will input into the Territory's implementation plan under the National Freight and Supply Chain Strategy and National Action Plan, which was released in August 2019.

KEY FREIGHT ROUTES MAP

900
897
Darwin International Airport Vol.

0 100 200
Scale (km)

- National Highway
- Major Road
- Rail
- International Airport
- Major Seaport
- Regional Airport
- Barge landing
- Imports (tonnes)
- Exports (tonnes)



Data Sources: Ports - Landbridge 2017, Roads - ABS 2014, Rail - Genesee & Wyoming, Air - Customs data from ABS 2017

NT CONTEXT

A key advantage for the Territory is its strategic location and close proximity to Asia and strong relationships with its northern neighbours. Within six hours air travel north of the Territory there are 485 million people, eight capital cities, 36 trading ports and 69 international airports.

Distances to key growing Asian markets is considerably shorter than the eastern seaboard. The proximity to fast-growing Asian and tropical regions presents boundless opportunities where demand for Australian goods and services is growing in line with rapidly growing economies.

The Territory has a strong comparative advantage in industries that produce products in high demand in Asia, and there are promising opportunities to grow the international education sector, tourism, mineral, gas, petroleum, fisheries and agricultural resources.

We are connected to international markets through sea and air services and to interstate markets through the national road network, the north south rail link and through air services.

In addition to the critical function of moving people, air services also provide the opportunity to transport time-sensitive freight within the Territory, to interstate and international markets. This is particularly relevant during emergencies, such as the COVID-19 pandemic response in 2020, when air services were relied upon to move urgent medical supplies.

Access to high quality phone and internet services is vital for all Territorians. The NT Government in collaboration with Telstra is investing in the bush through the co-investment program, to address black spots and connect more remote communities to essential services and the world.

The Territory's national highway network is fully sealed, however there is only one sealed link to Queensland, Western Australia and South Australia and no alternate route should one of these lifelines need to be closed. Additionally, 75 per cent of the road network is unsealed and vulnerable to closure and restrictions in wet weather. It can be cost prohibitive for industry to invest in the Territory given our road reliability issues and high maintenance costs of heavy vehicles using unsealed roads.

Some Top End communities may not have road access for up to six months each year due to flooding and road damage in the wet season. This impacts on accessibility, as it often cuts supply chains into remote communities.

The Territory's relatively small population is spread across more than 1.3 million square kilometres, with a large proportion of people living in remote and regional areas. Life in many remote coastal communities functions around a weekly barge schedule, while fresh fruit and vegetables in urban supermarkets are soon in short supply if rail or road connections fail.

Improving network reliability, resilience and developing infrastructure to meet growing demand is challenging. A low infrastructure base, extreme climatic and geographic conditions, and the lack of economies of scale provide challenges that contribute to high construction and repair and maintenance costs for remote and regional roads.

A number of major infrastructure projects which support and enable the logistics industry, have been completed in the Territory, including the Darwin Port, Adelaide to Darwin railway, and the Marine Supply Base.

These major infrastructure investments have been significant enablers of the economic and social growth the Territory has experienced.

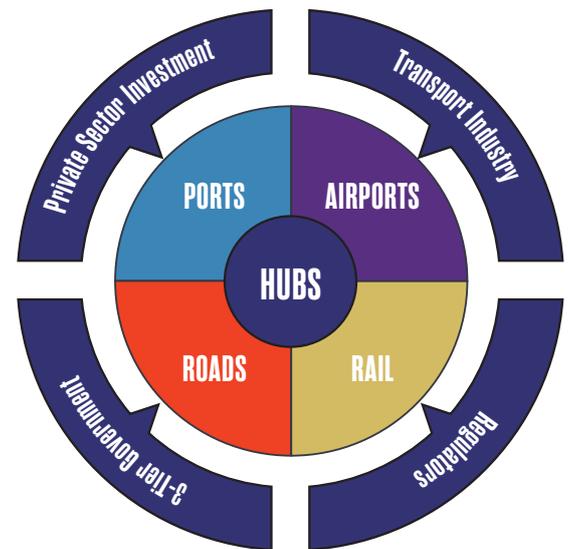
Other significant investments in logistics infrastructure that have been committed to include sealing the Central Arnhem Road all the way to Nhulunbuy, sealing the Tanami Road, the Darwin Ship Lift and Marine Industry Park and also Katherine Logistics and Agribusiness Hub. These investments will also provide significant opportunities to support economic growth in the Territory over many years.

The NT Government has a well established response framework for natural disaster given our annual cyclone and flood season.

Government agencies and councils work together to help the community respond and recover.

Important function groups within this framework are the transport (freight and logistics) and engineering groups.

TRANSPORT AND LOGISTICS NETWORK



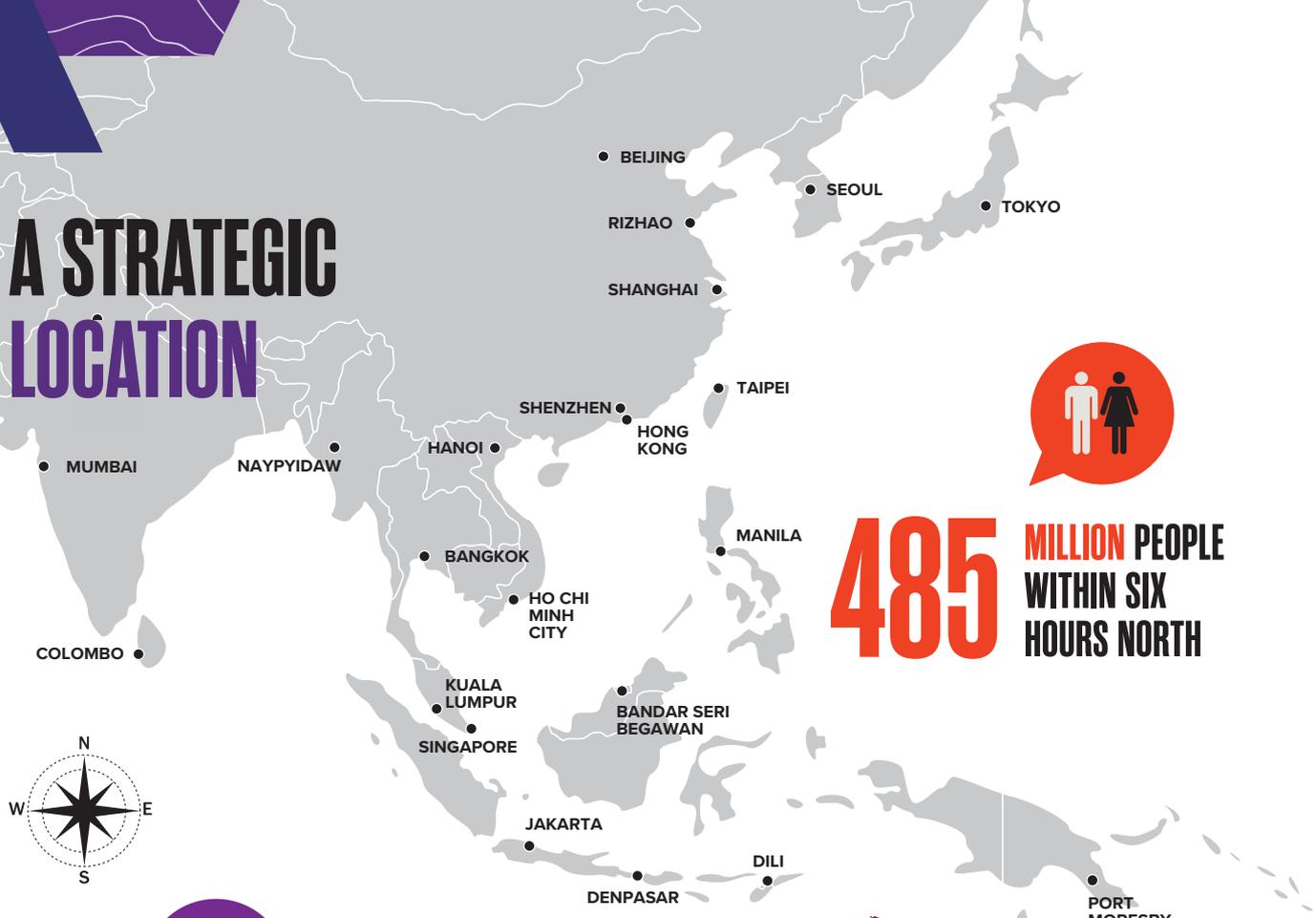
2020 COVID-19 Response

In early 2020, the NT Government responded quickly and decisively to the COVID-19 Pandemic crisis. A Territory Operations Centre was established to coordinate the whole of Government response. Territory borders were secured, and bio-security areas set up within the Territory to protect Aboriginal communities.

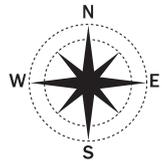
Processes were put in place to ensure that essential workers, freight and food supplies continued to be delivered where needed. Whilst there was a period of increased demand for goods, particularly food, the supply chains adapted quickly

and were able to meet demand over time. Both the Australian and NT governments declared all freight as essential, and provided stimulus assistance to businesses to help them adapt to the “new normal”. The NT Government worked with industry participants to assist them through exemption processes, and streamlining their appropriate and safe transition through border and bio-security crossings.

A STRATEGIC LOCATION



485 MILLION PEOPLE WITHIN SIX HOURS NORTH



25 MILLION PEOPLE WITHIN FIVE HOURS SOUTH



DESTINATION	Darwin	Brisbane	Perth	Adelaide	Sydney	Melbourne
Dili	1h 20m	5h 25m via Darwin	8h 40m via Singapore	5h 0m via Darwin	5h 50m via Darwin	5h 40m via Darwin
Bali/Denpasar	2h 45m	6h 05m	3h 30m	5h 10m	6h 15m	5h 50m
Shenzhen	5h 40m	9h 15m	11h 40m via Singapore	9h 20m via Darwin	10h 10m	10h 05m
Singapore	4h 30m	7h 35m	5h 0m	7h 15m	8h 0m	7h 40m

DESTINATION	Darwin	Brisbane	Perth	Adelaide
Jakarta	4 days, 6 hours (1532 nm)	9 days, 16 hours (3487 nm)	4 days, 22 hours (1763 nm)	8 days, 11 hours (3047 nm)
Manila	5 days (1807 nm)	9 days, 20 hours (3533 nm)	8 days, 6 hours (2971 nm)	11 days, 20 hours (4266 nm)
Singapore	5 days, 6 hours (1887 nm)	10 days, 16 hours (3842 nm)	6 days, 4 hours (2220 nm)	9 days, 18 hours (3504 nm)
Kuala Lumpur	5 days, 19 hours (2092 nm)	11 days, 6 hours (4052 nm)	6 days, 18 hours (2389 nm)	10 days, 5 hours (3673 nm)
Hong Kong	6 days, 13 hours (2353 nm)	11 days, 8 hours (4080 nm)	9 days, 18 hours (3504 nm)	13 days, 8 hours (4799 nm)
Shanghai	7 days, 16 hours (2765 nm)	11 days, 18 hours (4231 nm)	11 days, 5 hours (4037 nm)	14 days, 19 hours (5332 nm)
Tokyo	8 days, 10 hours (3033 nm)	10 days, 23 hours (3942 nm)	12 days, 12 hours (4500 nm)	14 days, 17 hours (5299 nm)
Seoul	8 days, 13 hours (3068 nm)	12 days, 6 hours (4410 nm)	12 days, 3 hours (4364 nm)	15 days, 17 hours (5695 nm)



INTERNATIONAL FLIGHTS FROM DARWIN

Flight times of existing routes internationally from Darwin compared to other capital cities in Australia.



DISTANCE TO KEY MARKETS BY SEA

TRANSPORT AND LOGISTICS SNAPSHOT

\$7 billion OF NT GOVERNMENT ROAD AND BRIDGE ASSETS

2700 km OF THE ROAD NETWORK IS NATIONAL HIGHWAY (FULLY SEALED)



22 000 km OF ROAD MANAGED BY THE NT GOVERNMENT

36 000 km OF ROADS

25% OF THE ENTIRE 36 000km ROAD NETWORK SEALED

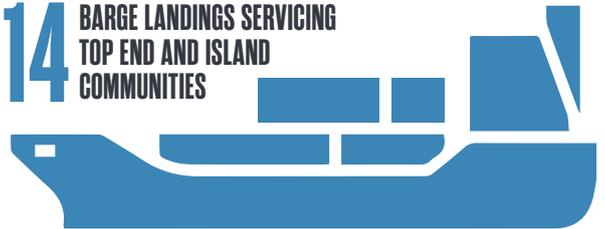


1 MAJOR PORT (DARWIN)



4 SIGNIFICANT INDUSTRY PORTS (GOVE, PORT MELVILLE, BING BONG AND ALYANGULA)

14 BARGE LANDINGS SERVICING TOP END AND ISLAND COMMUNITIES



4 MAJOR FREIGHT HUBS (DARWIN, ALICE SPRINGS, KATHERINE, TENNANT CREEK)

1737 km OF STANDARD GAUGE RAIL LINE FROM THE SOUTH AUSTRALIAN BORDER TO DARWIN



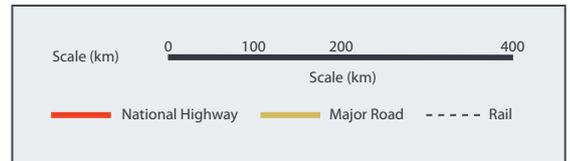
24 CERTIFIED OR REGISTERED AIRPORTS (REGIONAL AND MINING)

350+ REMOTE AIRPLANE LANDING AREAS OR AERODROMES

ONE INTERNATIONAL AIRPORT



REGIONAL PROFILES



60.1 PER CENT OF THE NT POPULATION LIVE IN THE GREATER DARWIN REGION

7.2 PER CENT OF THE NT POPULATION LIVE IN DALY-TIWI-WEST ARNHEM

GREATER DARWIN / PALMERSTON / LITCHFIELD

Population: 148 564 people – 60.1 per cent of the Territory’s population (85 503 Darwin; 37 841 Palmerston; 25 220 Litchfield, 18 216 Top End Rural)

Main industries: Retail, construction, defence, public administration, tourism, education, aquaculture, horticulture, cattle, crocodile farming, and liquefied natural gas and helium production

Percentage of the Territory’s businesses: 72.7 per cent across the Greater Darwin region including Palmerston and rural areas

Key opportunities:

- Trade gateway between North Australia and Asian region
- Increase cold transport storage options for the rail, airport and port
- Truck Central – heavy vehicle precinct
- Darwin ship lift and marine industry park

CENTRAL AUSTRALIA

Population: 39 388 people – 15.9 per cent of the Territory’s population

Main industries: Mining, tourism and primary industries

Main driver of economic activity and employment: Mineral production and exploration

Percentage of the Territory’s businesses: 14.2 per cent

Key opportunities:

- Further develop tourism drives, such as Savannah Way and Outback Way
- Brewer industrial estate development
- Multi-modal transport hub

15.9 PER CENT OF THE NT POPULATION LIVE IN CENTRAL AUSTRALIA



DALY-TIWI-WEST ARNHEM

Population: 17 902 people – 7.2 per cent of the Territory's population

Main industries: Tourism, forestry plantations and mineral sand

Percentage of the Territory's businesses: 2.5 per cent

Key opportunities:

- Tiwi Islands investment opportunities
- Port Melville expansion of exports
- Daly regional agricultural exports

EAST ARNHEM

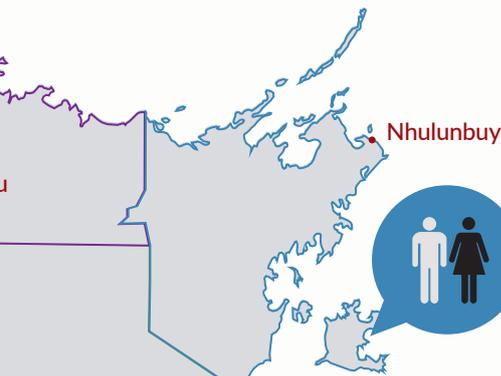
Population: 14 519 people – 5.9 per cent of the Territory's population

Main industries: Mining and oil and gas exploration and tourism

Percentage of the Territory's businesses: 1.5 per cent

Key opportunities:

- Central Arnhem road upgrade
- Potential investment in marine infrastructure to drive fisheries, transport and logistics, marine services and tourism sector growth
- Upgrading barge facilities for remote coastal communities



5.9 PER CENT OF THE NT POPULATION LIVE IN EAST ARNHEM



8.4 PER CENT OF THE NT POPULATION LIVE IN BIG RIVERS



2.5 PER CENT OF THE NT POPULATION LIVE IN THE BARKLY REGION



BIG RIVERS

Population: 20 839 people – 8.4 per cent of the Territory's population

Main industries: Pastoral, agriculture, mining, tourism, defence and government service delivery

Percentage of the Territory's businesses: 6.3 per cent

Key opportunities:

- Katherine Logistics and Agribusiness hub
- Ord River region development
- RAAF Tindal developments

BARKLY

Population: 6 115 people – 2.5 per cent of the Territory's population

Main industries: Mining, pastoral, tourism and construction

Main driver of economic activity and employment: Government services, pastoral and mining related activities

Percentage of the Territory's businesses: 1.5 per cent

Key opportunities:

- Mining maintenance and service centre
- Mount Isa – Tennant Creek Railway
- Multi-user rail siding for mining sector
- Beef roads program



VISION

A safe, reliable and efficient freight and logistics network which underpins and drives the Territory's future economic and social development.

PURPOSE

Facilitate increasing freight and logistics connections and capacity that capture both international and domestic trade for the Territory. To ensure the Territory can deliver reliable freight networks through long-term infrastructure planning and investment; and to provide an evidence based policy and regulatory framework.

PRIORITY FOCUS AREAS

In order to achieve its vision, government and the private sector must work together to maximise delivery of the actions listed in this Master Plan within the priority focus areas below.

TARGETED INFRASTRUCTURE INVESTMENT	INTEGRATED LOGISTICS AND LAND USE PLANNING	SUPPLY CHAIN POSITIONING	REGULATION AND SAFETY IMPROVEMENTS
			

WORKING TOGETHER TO DEVELOP THE MASTER PLAN

The NT Government has worked closely with industry and the private sector to develop strategies and plans which fall under the EDF including this Master Plan.

A discussion paper was disseminated to industry in early 2018, which provided detailed background on Territory industry sectors, infrastructure modes and the freight task. Consultation was undertaken in April and May 2018 and feedback received from stakeholders has been used to develop the actions within this Master Plan.

The NT Government engaged Deloitte Access Economics to explore the economic relationships between the existing infrastructure at several of the NT's key seaports and the role of these ports to accelerate the economic growth of the NT over the coming decade.

Roads, railways, ports and airports all contribute to the competitiveness of Territory-based businesses. The NT Government is committed to ensuring business benefit from public investment in these facilities.

STRATEGIC ALIGNMENT

The EDF forms the basis for the Territory's long term decision making to ensure the Territory is moving towards a shared vision for the future.

The EDF sets the framework for future economic development and identifies actions to support our growth and developing sectors, as well as actions to benefit multiple sectors.

The Framework provides the overarching structure for the Infrastructure Strategy, the 10 Year Infrastructure Plan and other government and industry plans, strategies and policies, including this Master Plan.

The EDF recognises that growing Asian economies will create strong demand for products the Territory can produce competitively. Growth sectors identified in the EDF include Energy and Minerals, Tourism, Agribusiness, International Education and Training, and Defence and Support Industries.

The Infrastructure Strategy and 10 Year Infrastructure Plan provide a framework for a more transparent and integrated approach

on how to plan, prioritise, use and deliver infrastructure. It provides confidence and certainty to industry and the public about the future direction for infrastructure provision in the Territory.

The Northern Territory Population Growth Strategy 2018–2028 provides the framework for attracting people to the Territory, and encouraging those already here to stay for the long term. More people mean more jobs, stronger growth and better services for Territorians.

The NT Government will invest over \$50.4 million over two years in addition to existing activities to implement targeted population growth initiatives.

Further initiatives are being developed through the EDF and will create jobs across a range of industry sectors.

The NT Government is developing a Climate Response Strategy which will influence future decision making concerning investments in Territory logistics infrastructure.

DEVELOPING THE NORTH

A strong and prosperous Northern Australia is critical to Australia's economic future and national security. Northern Australia has the potential to be a major contributor to Australia's economy, however unlocking this potential is highly reliant on the provision of enabling infrastructure.

The Australian Government's 2015 White Paper on Developing Northern Australia sets out a vision and framework for this nation-building agenda, focussed on the north's untapped potential, its abundant resources and highly skilled people.

The North is Australia's gateway to the economically and strategically important Indo-Pacific region, with close ties with our ASEAN neighbours. The Territory is ideally positioned to take advantage of future opportunities for trade and investment, but unlocking this potential requires efficient infrastructure and connected supply chains.

With the rapidly changing geo-political landscape in the Indo-Pacific region, Northern Australia is critical to the security of Australia. The Territory is strategically positioned as a regional hub for defence, border protection, humanitarian assistance, biosecurity and ensuring vital trade routes remain open. Infrastructure is critical to the ability of Defence to operate in the North, which is reflected in Defence's commitment to investing billions of dollars in the Territory through the integrated investment program over the next 20 years.

The Australian Government and Northern Territory Government are investing in road infrastructure through the National Partnership Agreement on Land Transport Infrastructure Projects. This includes joint funding of \$37.5 million in upgrades to

improve the cattle supply chain on the Barkly Stock route and Tablelands Highway through the Northern Australia Beef Roads Program, and \$240 million in upgrades to high priority roads in the Territory through the Northern Australia Roads Program.

The Australian Government and the Northern Territory Government will jointly invest in key road corridors through the Roads of Strategic Importance (ROSI) initiative. This includes \$615 million for the Stuart Highway, Victoria Highway, Barkly Highway, Port Keats Road and Tanami Road to ensure our key freight roads efficiently connect agricultural and mining regions to rail, port, airports and other intermodal hubs. Ten year funding for upgrades of the Central Arnhem Road (\$225 million) and Buntine Highway (\$125 million) and further funding for the Outback Way will improve freight connectivity and enhance economic development opportunities. Tiwi Islands will benefit from a further \$75 million in road upgrades to improve freight movements for the forestry industry and enhance connectivity between communities.

In September 2018, the Australian Government's Northern Australia Infrastructure Facility (NAIF) approved a \$150 million loan finance to NT Airports Pty Ltd for a \$300 million expansion of airport facilities in Darwin, Tennant Creek and Alice Springs. The investment will help create up to 1500 jobs and support the development of the Territory's export potential, particularly in agriculture. The Territory will continue to work collaboratively with private sector partners, to identify and scope quality economic infrastructure projects into the NAIF pipeline.

NATIONAL FREIGHT AND SUPPLY CHAIN STRATEGY

In December 2017, the development of a National Freight and Supply Chain Strategy (the National Strategy) was announced to improve national freight performance.

The National Strategy was informed by the 2018 Inquiry into National Freight and Supply Chain Priorities.

The National Strategy sets an agenda for collaborative and integrated government action in freight transport for the next 20 years. It provides a framework to identify actions that can add value across the entire freight supply chain and provides guidance to governments in considering their strategic priorities on freight transport and related policy and programs.

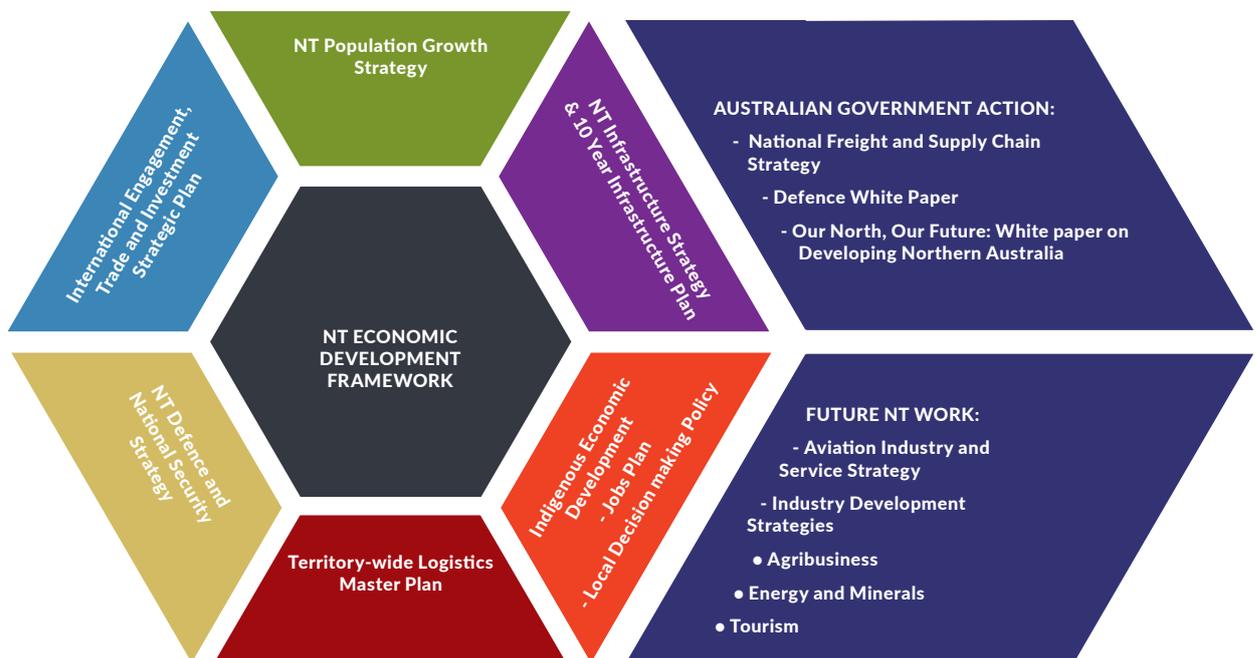
The Strategy's implementation will be guided by a National Action Plan, which will form the basis for implementation plans prepared by each jurisdiction.

The National Action Plan will focus on four key Areas:

- Smarter and targeted infrastructure investment
- Enable improved supply chain efficiency
- Better planning, coordination and regulation
- Better freight location and performance

The National Strategy was finalised and published in August 2019 in partnership with all Australian jurisdictions. The NT Government will ensure that remote and regional issues will continue to be addressed at the national level through the National Freight and Supply Chain Strategy, as well as alignment of actions with this Master Plan.

Northern Territory priority projects included in the National Action Plan include the Katherine Logistics and Agribusiness Hub, NT Airports Expansion Program, Darwin Ship Lift Facility and the Remote Telecommunications Co-investment Program.



PRIORITY PROJECTS

Darwin Ship Lift and Marine Industry Park

In August 2019, the NT Government confirmed that it will build the largest ship lift in Northern Australia. The ship lift will be funded by the NT Government, which has already committed \$100 million. On 7 December 2019, the Australian Government confirmed it would provide a low interest loan of \$300 million through the North Australian Infrastructure Facility (NAIF) to assist with the necessary infrastructure capital to build the Ship Lift.

The project will deliver a new industry for the Territory, creating jobs, and enabling the maintenance and servicing of defence and Australian Border Force vessels as well as the Territory's and our neighbours' shipping fleets. The project will provide a ship lift and common user facility that will cater for wet and dry dock ship maintenance and support Darwin's position as a growing logistics and marine services hub.

It is estimated around 100 workers will be employed throughout the facility's construction phase, and once operational the facility will be a catalyst for the development of a marine maintenance and servicing industry, potentially leading to the peak employment of up to 4,000 people and \$3.4 billion in gross state product (GSP).

In 2017 it was announced that a project development agreement had been reached between the NT Government and the Paspaley Group. Front End Engineering and Design Phase was completed in late 2018.

It is anticipated that construction will commence in mid 2021 and completion by late 2023.

The Katherine Logistics and Agribusiness Hub

The Katherine region is one of the Territory's brightest economic hotspots with international interest in agribusiness from horticulture through to the region's cattle industry.

The NT Government is working to develop the Katherine Logistics and Agribusiness Hub to drive economic development, create jobs and increase prosperity in the region.

Based on the identified industry needs, Deloitte has estimated the potential hub could require about 150 hectares of land. The proposed site for the hub is near the intersection of the Katherine railway terminal, Victoria Highway and proposed future heavy vehicle alternate route, within the Manbulloo pastoral lease.

The NT Government has committed \$30 million in the 2019/20 Budget for headworks and subdivision works.

HIGHLIGHTS FROM THE 10 YEAR INFRASTRUCTURE PLAN

Roads Of Strategic Importance

The Australian Government, together with the NT Government, will invest up to \$4.5 billion over the next ten years, on Roads of Strategic Importance (ROSI), to connect regional businesses to local and international markets.

ROSI will ensure our key freight roads efficiently connect agricultural and mining regions to ports, airports and other transport hubs. It will deliver works such as road sealing, flood immunity, strengthening and widening, pavement rehabilitation, bridge and culvert upgrades and road alignments

Transport Industry Precinct

The Transport Industry Precinct is centrally positioned between the cities of Darwin and Palmerston the key transport nodes including the Berrimah Rail Freight Terminal, East Arm Wharf, Marine Supply Base and Darwin International Airport.

Stage 1 of the Transport Industry Precinct, 'Truck Central' comprises the Heavy Vehicle Inspection Facility, Road Train Assembly Area and BP Truck Stop. Being at the nexus of Darwin's major freight routes, 'Truck Central' has exposure to more than 18,000 traffic movements daily.

Regional Aerodromes and Barge Ramps

Regional and remote air transport is essential for stimulating regional economies, supporting social and essential service delivery and providing vital access for regional centres and remote communities. Vast distances by

road, a lack of road access during northern Australia's wet season and the isolation of many island based communities mean that air services are a necessity for many Territorians.

The Northern Territory Government does not operate aerodromes, but assists with maintaining a network of 70 remote aerodromes, fifty of which are on Aboriginal land and owned by various Land Trusts. The Northern Territory Government also undertakes essential capital works at these aerodromes and applies for matched funding from the Australian Government remote aerodrome funding programs where possible. The Northern Territory Government will continue to advocate for these programs to be expanded and well into the future.

The NT, currently maintains 14 barge landings across the Top End coast. All of the barge landings are on Aboriginal land under the Aboriginal Land Rights Act, and interests over them are administered by Land Councils or the Office of Township Leasing. Of these, nine are on island communities with no alternative means of land transport. The other five service coastal communities, where roads are generally closed for the duration of the wet season.

All of these 14 communities are therefore, dependent on barges for most commodities, equipment and materials, and fuel for power generation. At many barge landing locations, Power and Water Corporation has invested in storage tanks and fuel lines to the power stations from the barge landings.



NORTHERN TERRITORY GROWTH SECTORS

Territory growth sectors with a heavy reliance on freight and logistics include:



The energy and minerals, agribusiness and defence industry sectors have a heavy reliance on freight and logistics networks, and are expected to experience future growth. While the tourism sector primarily focusses on the movement of passengers, it also supports the movement of time sensitive freight. The Master Plan consultation focussed on freight and logistics networks which support these industries.

Significantly for Territory businesses and consumers, there is heavy reliance on the efficient movement of general freight, including construction materials, wholesale and retail distribution. The more efficient our supply chains can operate, through well-planned and regulated infrastructure and services, the lower costs of living will be for Territorians.

GENERAL FREIGHT

General freight is defined as consumer articles, such as groceries and general merchandise, as well as business inputs such as building materials.

Growth in general freight is primarily driven by growth in population, income and consumer demand.

The Territory is a net importer of general freight and the majority of our general interstate freight is moved on the north-south corridor on road and rail. The vast majority of the contestable general freight is being transported on rail.

The cost of general freight is a contributor to the cost of business inputs and the cost of living for Territorians. To put downward pressure on prices it is important that the transport industry is operating as efficiently as possible. This means well planned

infrastructure and appropriate regulation.

General freight distribution across the Territory includes all modes of transport. Many Top End Aboriginal communities are isolated by floodwaters for a good part of the year, and are therefore reliant on coastal shipping and barge landing facilities. The effective movement of freight relies on the whole freight and logistics network, which may include the functions of consolidation, cold storage, transport companies and distribution centres. Recently the logistics industry demonstrated its ability and capacity to ramp up to meet unprecedented demand in response to the COVID-19 crisis.

ENERGY AND MINERALS

Mining is the largest single contributor to the economy of the Territory.

In 2018/19 the Minerals sector contributed \$4.7 billion to the Territory economy and the combined Minerals and Energy sectors (including gas processing) contributed \$5.7 billion to the Territory economy.

The Territory currently has world-class mines including: The Granites - Callie Gold mine, Gove bauxite mine, Groote Eylandt manganese mine and McArthur River zinc-lead mine. There are currently 11 operational (medium to large) mines in the Territory, and 17 projects that have commenced government approval processes. These projects involve a capital expenditure of over \$6 billion, and approximately 4000 jobs in construction and 3000 jobs during production. All projects are located in

regional areas and many of these projects have an expected life of over 20 years.

As part of the Northern Territory and Australian Government Memorandum of Understanding for collaboration to support the development of the Territory gas industry, a study is being undertaken by the Gas Taskforce, to assess and identify the infrastructure and logistics requirements to support development in the Beetaloo Sub-basin. Planning for transport and logistics centres and delivery of infrastructure such as roads, rail, ports, pipelines, aerodromes, telecommunications, waste management, water and social infrastructure will be critical to ensure the industry is able to compete in national and international markets.

AGRIBUSINESS

The agribusiness sector in the Territory includes cattle (interstate and live export), other livestock (buffalo, crocodiles, and goats), horticulture (fruit, vegetables, nursery and cut flowers and turf), mixed farming (field crops, hay and seeds and forestry) and harvesting of bush foods and medicines.

Livestock

Live cattle export trade (the largest markets in Indonesia and Vietnam) and the sale of cattle in the interstate markets (mostly Queensland and South Australia) dominates agricultural production in the Territory. In 2018, cattle movement and live exports accounted for almost 579,400 head of cattle being transported along Territory roads.

In 2017/18, the pastoral industry estimated that the value of production for the cattle industry was \$597.3 million, contributing 58.2 per cent of the total value of the Territory's agribusiness production value and is a major contributor to incomes in regional areas of the Territory.

The Territory has 223 pastoral leases, covering approximately 44 per cent of the Territory, which run a total herd of approximately 2.2 million head of cattle. According to the NT Cattlemen's Association, the average distance to port or slaughter for Territory stations is approximately 1,135 km.

Fisheries

The Territory fishing industry encompasses the commercial, recreational and traditional Aboriginal sectors. The commercial sector includes the harvesting of wild catch fisheries and aquaculture, as well as the processing, trade and retailing of

seafood. In 2017/18, the total value of the Territory fishing production was \$110.6 million, 10.8 per cent of the total value of the Territory's agribusiness production.

Wild caught fish is currently exported, frozen, from Darwin to markets such as South Korea.

The anticipated growth of aquaculture in the coming years will create increased reliance on transport networks. Humpty Doo Barramundi (HDB) is now Australia's largest producer of barramundi with 2,400 tonnes of product per year being marketed in Australia. Initial trial exports have been made to the United States, China, Japan and the European Union, presenting potential new markets for airfreighting of chilled fish.

The \$2 billion Project Sea Dragon will deliver the world's largest integrated aquaculture development, which at full scale will have the capacity to produce over 100,000 tonnes of black tiger prawns a year for export.

The combined economic value of the Western Australia and Territory pearling industries is about \$80 million per annum. The pearling industry in the Territory principally uses sea freight to service their farms. About 70 per cent of the combined industry's freight is managed through Darwin and includes fuel, food and other consumables.

Plants

The Territory's Plant industries include fruit, vegetables, cut flowers, tropical plants, turf and other field crops. In 2017/18, the value of Territory plant production (including mixed farming) was \$286.3 million, being 27.8 per cent of the total value of the Territory's agriculture production.

In 2016/17, 63.3 per cent (\$181.2 million) total value of production of the Territory's plants was derived from fruit production.

The main fruits produced in 2018/19 in the Territory include 50 per cent of Australia's production of mangoes (31,595t), 30 per cent of Australia's production of melons (56,400t) other fruits (4,500t) and counter-seasonal table grapes (1,800t).

The majority of the Territory's horticulture product is transported to interstate freight forwarders via road and rail transport and then exported. Direct exports from Darwin to Asia by air and sea occur seasonally and markets continue to be explored.

Plantation forestry is the second largest production land use in the Territory after beef grazing, with more than 47,000 ha currently growing forest products. Plantation operations include production of black wattle for pulp, African mahogany for high value timber and sandalwood for oil and pharmaceuticals.



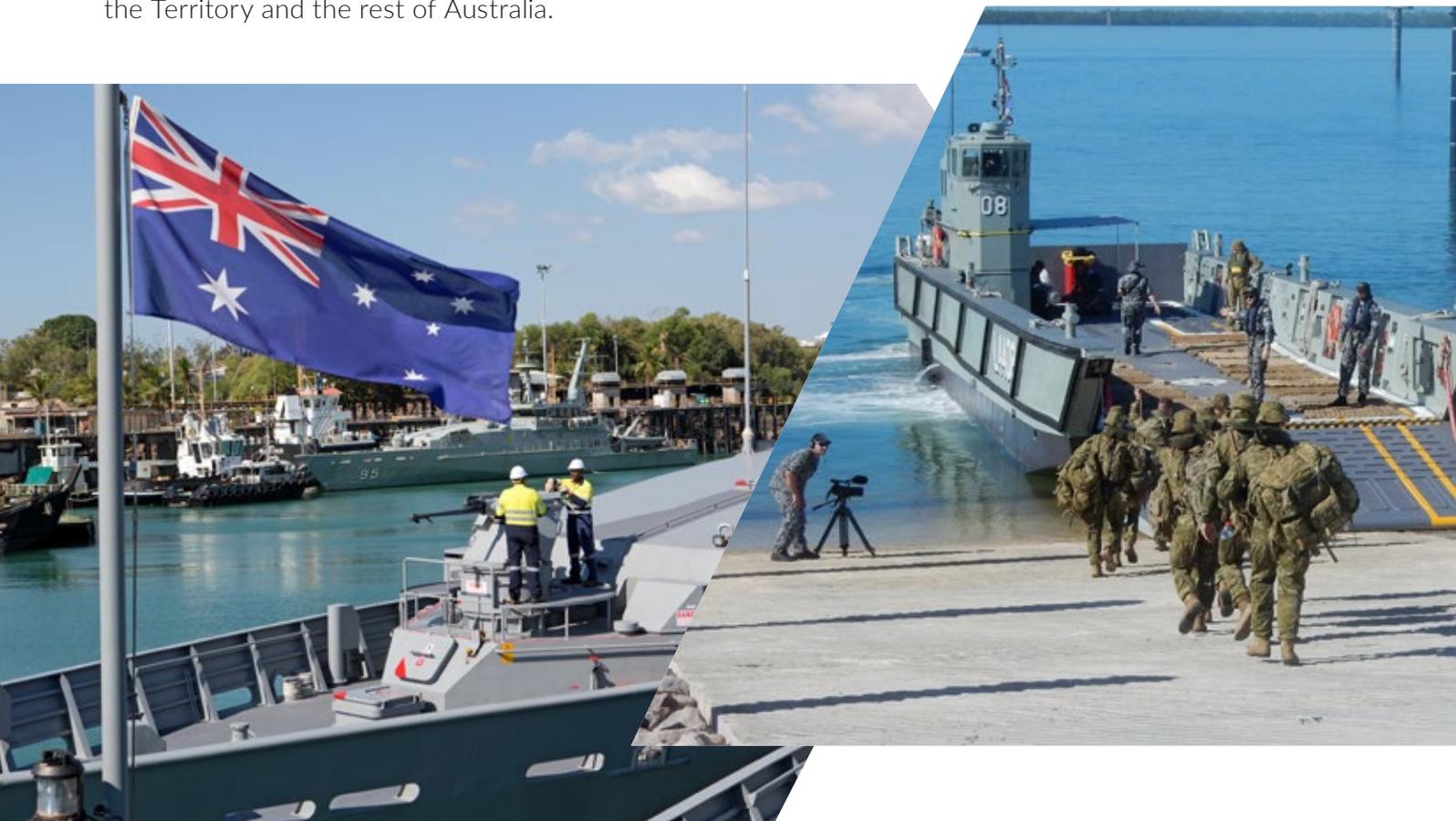
DEFENCE

The Territory is home to 7.6 per cent of Australia's permanent Defence force personnel, in addition up to 2,500 US Marine Corps on rotation.

Defence continues to make a substantial contribution to the Territory's economy, with an estimated \$3.15 billion to be spent in the Territory over the next 6 years.

Every year there are a number of Defence exercises, which contribute to the Territory economy. Defence operates a large number of facilities established for different purposes across the Territory. They are located across a large geographical area making access and movement of personnel, food/supplies and equipment critical. Personnel and facilities also need to be moved between Defence establishments in the Territory and the rest of Australia.

Recognising increasing demand for marine industry services from Defence, Australian Border Force, the offshore oil and gas and commercial sectors (such as Super Yachts), the NT Government will invest in the development of a common user ship lift and marine industries facility. The facility will target expanded marine maintenance and repair work and development of the logistics networks to support this role.



TOURISM

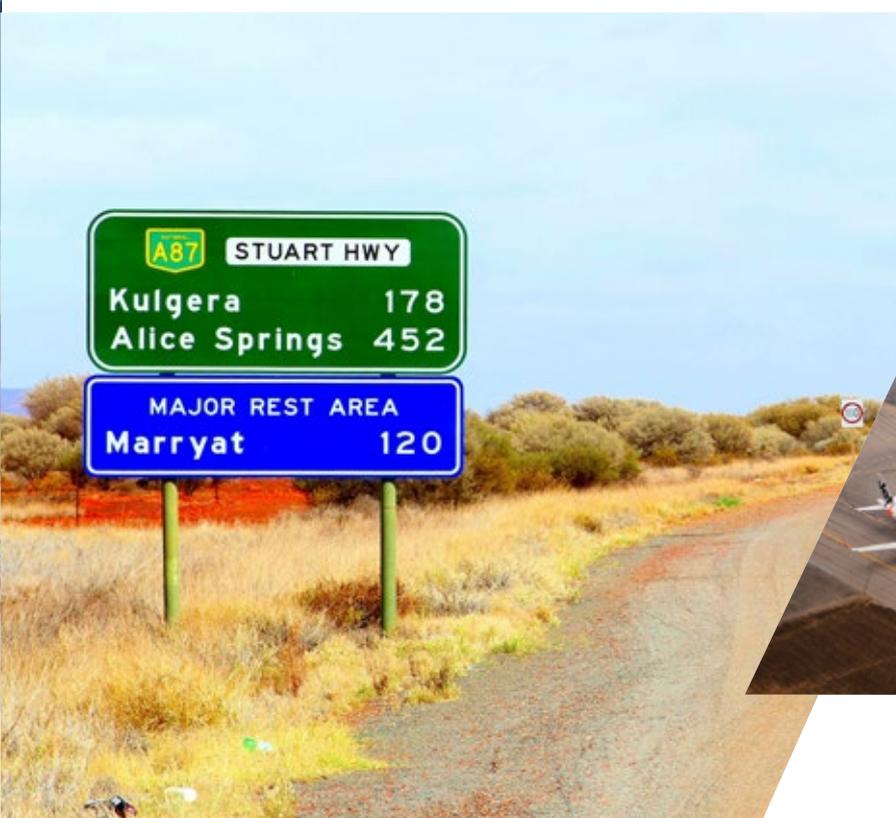
Tourism is a major employer and contributor to the Territory economy with the sector offering a range of experiences for national and international visitors. The NT Government is committed to its Turbocharging Tourism Strategy to achieve growth in the industry.

In 2017/18, the tourism industry contributed \$2.2 billion to the Territory economy, accounting for 9.5 per cent of the Territory's total gross value added.

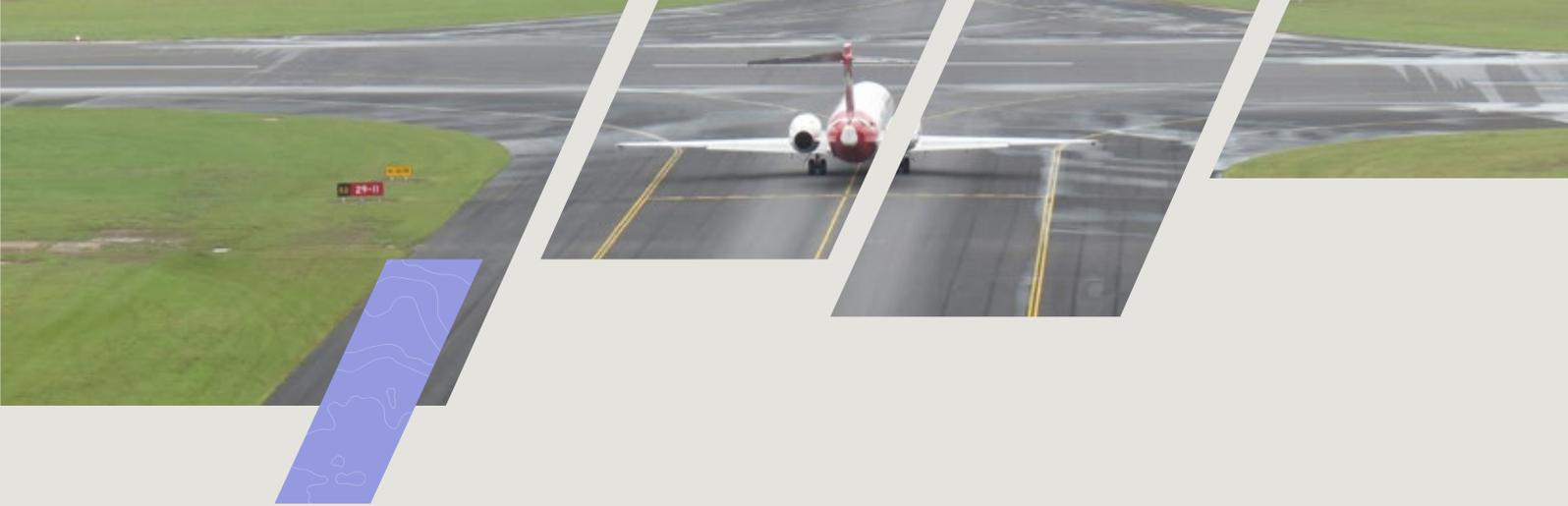
In the same year tourism supported 17,100 jobs.

While the tourism industry primarily focusses on the movement of people, there are linkages with our infrastructure and the freight task, which is the primary focus of this Master Plan.

As the tourism industry recovers from recent downturn during the COVID-19 crisis, and expands, new freight opportunities are emerging, particularly as new air services to Darwin commence. This presents an opportunity to access new international markets, particularly for agricultural products. Further, the Territory receives over 850,000 overnight visitors each year who drive, interacting with our road freight task. The interfaces between tourism and freight and logistics are considered in the actions with this Master Plan.







ACTION PLAN

PRIORITY FOCUS AREAS

In order for the Territory to achieve its vision of a safe, reliable and efficient freight and logistics network, actions identified through this Master Plan will focus on the four Priority Focus Areas, being:

1. Targeted Infrastructure Investment
2. Integrated Logistics and Land Use Planning
3. Supply Chain Positioning
4. Regulation and Safety Improvements

It is envisaged that actions detailed for each priority focus area, can be delivered in the short, medium or long-term, as outlined in this plan. Funding for key actions may come from various sources including the Australian Government, NT Government, private sector and also through public-private partnerships.

Actions identified under the Territory's Priority Focus Areas will assist in the delivery of the Australian Government's National Freight and Supply Chain Strategy, as indicated through the following National Action Plan icons:



Smarter and targeted infrastructure investment



Better planning, coordination and regulation



Enable improved supply chain efficiency



Better freight location and performance

PRIORITY FOCUS AREA #1

TARGETED INFRASTRUCTURE INVESTMENT

The Northern Territory is a developing economy with a low infrastructure base. Darwin continues to grow and develop as a major multi-modal transport and logistics hub in Northern Australia, combining sea and land transport infrastructure through the Port of Darwin and the Adelaide to Darwin railway.

In addition to the Darwin Port, other ports in the Territory include Bing Bong near Borroloola, Alyangula on Groote Eylandt, Nhulunbuy on the Gove Peninsula, and Port Melville on the Tiwi Islands. These ports export raw and processed minerals and forestry product to overseas and interstate markets.

The NT Government is committed to improving the quality of regional roads. Freight movements are a key consideration in regional road infrastructure funding and prioritisation. The Territory will continue to advocate for a fair allocation of Australian Government resources to support the economic and social development of Northern Australia and the Territory.

The Adelaide to Darwin railway line opened in 2003 and includes 1,737 km of standard gauge rail line from the South Australian / Northern Territory border, to the Port of Darwin. The railway provides an important connection to the national rail network and to the growing economies

of Asia through the Port of Darwin.

The NT Government assists in maintaining 70 strategic remote and regional aerodromes, which provide air logistics to many remote communities across the Territory. In addition to supporting freight, these aerodromes provide emergency services such as medical evacuation and other critical government services.

Access to high quality telephone and internet services is vital for all Territorians. The NT Government in partnership with Telstra will jointly fund improved telecommunications services Territory-wide through a new Remote Telecommunications Co-Investment Program.

The Territory's transport and logistics infrastructure requires significant development, hence we must continue to prioritise investment in our roads, rail, ports, airports and consolidating freight hubs.

The 10 Year Infrastructure Plan prioritises all infrastructure development in the NT, including infrastructure relating to logistics.

To build on existing infrastructure and plan for future growth, the Territory must partner the Australian Government and industry to deliver targeted infrastructure investment which will maximise productivity and connectivity.

ACTIONS

PRIORITY	ACTIONS	TERM	NATIONAL ACTION PLAN
1 Targeted Infrastructure Investment	1.1 Continue to identify logistics infrastructure priorities through the 10 Year Infrastructure Plan, that is operated and maintained in an affordable manner, reduces whole of life costs, and ensures value for the Territory.	Ongoing	
	1.2 Develop the Darwin Ship Lift Facility.	Short-Medium	
	1.3 Negotiate Bringing Forward Funding under National Partnership Agreement on Land Transport Infrastructure.	Short	
	1.4 Deliver road networks upgrades over 10 years through the Australian Government's \$4.5 billion Roads of Strategic Importance (ROSI) program.	Medium	
	1.5 Deliver upgrades to key roads necessary for transporting cattle through the Australian Government's \$100 million Beef Roads Program.	Short-Medium	
	1.6 Deliver upgrades to high priority roads through the Australian Governments' \$600 million Northern Australia Roads program.	Short-Medium	
	1.7 Continue to advocate for northern Australia roads funding as an economic enabler through 10 year rolling programs that provide sustainable employment for remote communities and Aboriginal people as well as providing the benefits of a sealed connection to the National Network.	Medium	
	1.8 Maintain ongoing consultation with transport and logistics stakeholders, to continue to identify and address blockages and identify opportunities, such as appropriate cold storage and treatment facilities at our ports, airports and multi modal hubs.	Ongoing	
	1.9 Work with industry and private sector to identify capacity constraints and investment opportunities in Port infrastructure, such as infrastructure required for mining exports.	Medium	
	1.10 Continue to work with Telstra by joint funding improved telecommunications services in the bush through the Remote Telecommunications Co-Investment Program.	Short	
	1.11 Continue to advocate to the Australian Government for ongoing funding for the Remote Aerodrome Funding Program to be expanded and continue well into the future.	Medium	
	1.12 Work with the rail operator to ensure that infrastructure is upgraded to facilitate industry usage at the rail corridor.	Medium	
	1.13 Continue to advocate for a review of the traditional approach to project assessment for Australian Government funding of transport infrastructure projects.	Medium	

PRIORITY FOCUS AREA #2

INTEGRATED LOGISTICS AND LAND USE PLANNING

Planning for the logistics industry includes both long term strategic planning and integrated land-use planning activities.

Land-use planning activities are critical to protecting existing freight corridors as well as identifying future land requirements to ensure the timely development of effective road, rail and port links and intermodal facilities. To date, sound planning in the Territory has avoided first and last mile issues seen in other jurisdictions, and has assisted with the alignment of future industrial land with road, rail and port links.

Preservation of future key transport corridors is critical to facilitating efficient freight movement to and from growing markets and promoting broader economic development opportunities.

Downstream gas manufacturing opportunities will drive growth in jobs in the north of Australia. Land use planning and master planning of Middle Arm is currently in progress to ensure that the logistics requirements for this important opportunity are thoroughly worked through to ensure the Territory can facilitate major industry on Darwin's doorstep.

Significant planning work has already commenced to transform Katherine into a regional logistics and agribusiness hub, as well as developing Tennant Creek as a mining service centre including the rail corridor studies for a link between Tennant Creek and Mount Isa.

The Katherine Heavy Vehicle Alternate Route is also important for the long term logistics needs of Katherine, which is highlighted in the Katherine Land Use Plan.

Emerging technologies are expected to make an impact on the transport and logistics sector over the next decade as industry embraces new ways to improve performance and better serve customers.

Industry will adapt as new technologies become more accessible, such as alternate fuel sources, automated vehicles, and telematics (freight management systems).



ACTIONS

PRIORITY	ACTIONS	TERM	NATIONAL ACTION PLAN
2 Integrated Logistics and Land Use Planning	2.1 Ensure future strategic land use planning integrates and accommodates the growing freight task through availability and preservation of transport corridors and industry precincts.	Ongoing	
	2.2 Continue to support Darwin as Northern Australia's capital and gateway to Asia through the planning and development of the East Arm Logistics and Marine Industry Precinct.	Medium-Long	
	2.3 The NT Government in collaboration with the Australian Government (Austrade), Darwin Port, NT Airports and local industry will continue to work together to create air freight opportunities, infrastructure development plans, market activity, export strategies and trade support through land use.	Medium	
	2.4 Co-develop comprehensive Industry Development Strategies for key industries that cover innovation, technology, supply chain analysis, market analysis and development, workforce (including Aboriginal employment strategies) regulation and regional development opportunities.	Medium	
	2.5 Continue working with the private sector on a number of initiatives to boost the mining industry in Tennant Creek and develop Tennant Creek as a mining logistics and services hub, leading to increased investment, population growth and developing service and supply opportunities.	Medium-Long	
	2.6 Continue to plan for the future development of a railway link between Tennant Creek and Mount Isa.	Long	
	2.7 Complete a study to assess and identify the land, infrastructure and logistics requirements to support on-shore gas development.	Short	
	2.8 Promote the development of the on-shore gas industry, including investment opportunities in supporting infrastructure use such as new gas pipelines and rail sidings to freight hubs.	Short-Medium	
	2.9 Develop Katherine as an agribusiness logistics hub (\$30 million 3-10 years).	Short-Medium	
	2.10 Promote the Middle Arm Industrial Precinct as a site for large strategic industries for the downstream gas and mining related developments.	Short-Medium	
	2.11 Continue collaboration with Local Government through the Regional Roads Committees to maximise investment in the NT transport network.	Medium	

PRIORITY FOCUS AREA #3

SUPPLY CHAIN POSITIONING

Our supply chains are a network of infrastructure, people, companies, products and services that coordinate the logistics movement of freight and transports them to domestic and export markets. Supply chains rely on relationships and dependencies between producers, transporters, customs officials and freight forwarders.

Government and industry need to work collaboratively to improve the performance of logistics and supply chain functions connecting remote and regional areas to external markets.

Changing business practices and new technologies, like digitalisation, automation and electrification, have the potential to further enhance supply chains and improve freight productivity and lower costs. Freight and logistics hubs, precincts and terminals are vital to supporting effective and efficient supply chains by linking the movement

of freight between road, rail, air and sea transport modes. The Territory's major freight and logistics precinct is located in Darwin and is supported by regional freight centres in Alice Springs, Tennant Creek and Katherine.

New technology and changing economic activity are reshaping how our logistics supply chains operate; this requires ongoing workforce training and development. Changing consumer preferences, including growth in online shopping, mean the logistics industry requires a multi-skilled and adaptive workforce.

As demonstrated in the recent 2020 COVID-19 crisis, the Territory has well developed and tested emergency response preparedness. Our supply chains and freight network can respond quickly with the capacity to implement necessary changes to operations as required.



ACTIONS

PRIORITY	ACTIONS	TERM	NATIONAL ACTION PLAN
3 Supply Chain Positioning	3.1 Continue to support private investment into infrastructure and supply chains to leverage the growth of the NT's future growth industries and create jobs.	Short-Medium	
	3.2 Implement the International Engagement, Trade and Investment Strategic Plan – guiding engagement with our international partners to grow trade, investment, partnerships and connectivity of our supply chain networks to also consider transport and logistics solutions.	Short-Medium	
	3.3 Implement the NT Defence and National Security Strategy – building our supply chain capacity to support the defence industry, including attracting and retaining defence personnel and support workers and their families.	Short-Medium	
	3.4 Engage local people in local work, particularly Aboriginal people in remote and regional areas on Northern Australian Roads and Beef Roads programs, supported by the Buy Local Plan, Aboriginal Contracting Framework and the Local Decision Making Framework.	Short-Medium	
	3.5 Deliver the Local Jobs Fund to grow the economy and support more local jobs in the transport and logistics sector.	Short	
	3.6 Support NT Government initiatives in the NT Population Growth Strategy 2018-2028 which have a direct impact on the transport and logistics sector to grow our population, including attracting investment and creating jobs and enhancing liveability.	Short-Medium	
	3.7 Maximise new private investment for the NT through support for private sector infrastructure projects seeking financial incentives such as the Australian Governments Northern Australia Infrastructure Facility (NAIF).	Short-Medium	
	3.8 Support NT Airports deliver their \$300 million Airport Expansion at Darwin, Tennant Creek and Alice Springs.	Short-Medium	
	3.9 Work with airlines to develop ongoing air access to and within the NT.	Ongoing	
	3.10 Identify forward looking reforms that could provide a competitive advantage for businesses in the Northern Territory including future trends and technologies.	Short-Medium	
	3.11 Proactively respond to the impacts of climate change through climate change proofing our infrastructure (Coordinated through the NT Climate Change Response).	Long	
	3.12 Work with Infrastructure Australia to ensure the Australian Infrastructure Audit identifies key Northern Territory Infrastructure needs and opportunities.	Short	
	3.13 Undertake a detailed service and supply strategy for the onshore-offshore gas sector, to encourage the development of local supply chains.	Short	
	3.14 Undertake a product supply chain study in nearby Asian hubs to maximise product delivery through the Northern Territory.	Medium	
	3.15 As part of an annual emergency response preparedness, work with the logistics industry to ensure quick responses during an incident.	Short	
	3.16 Work with the Australian Government and other jurisdictions through the National Freight and Supply Chain Strategy to ensure Australia's continued preparedness for future national emergency responses.	Medium	

PRIORITY FOCUS AREA #4

REGULATION AND SAFETY IMPROVEMENTS

The NT Government is committed to reducing red-tape regulatory burden for small business, while ensuring the level of regulatory oversight reflects the relevant risks, is fit-for-purpose and maximises safety. The safety of the logistics workforce and the general public as they interact with the freight task remains a priority, whether it is on roads, at rail crossings or on water.

As part of the Seamless National Economy agenda, the Council of Australian Governments agreed to national transport regulation reforms, including the establishment of national rail, marine and heavy vehicle regulators.

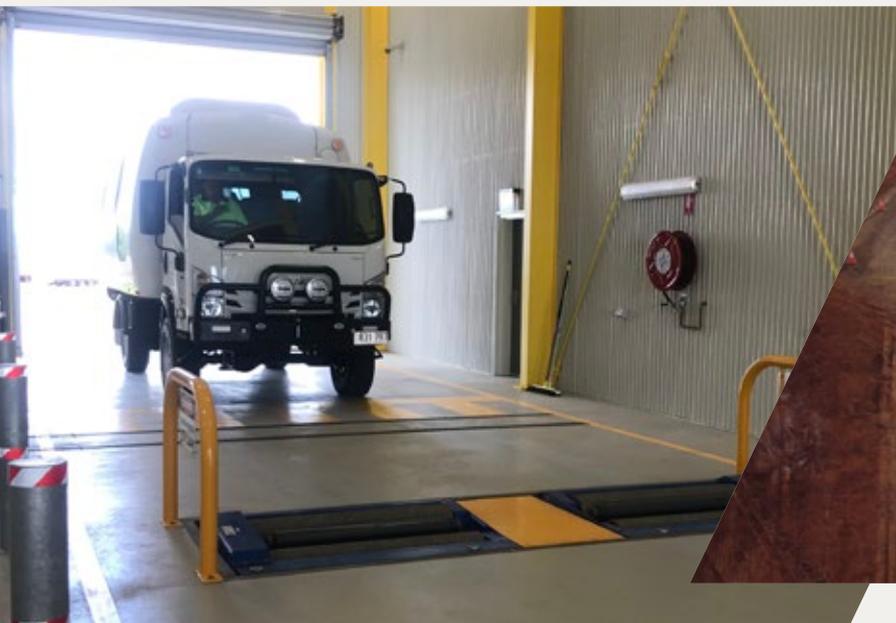
Given the Territory's reliance on logistics and supply chain networks, the Territory must continue to have the most efficient regulatory environment for freight, while not compromising safety. This includes ensuring that national reforms and regulations are appropriate for the Territory's remote and regional context, and do not negatively effect remote and

regional Territorians. This includes the application of the national heavy vehicle regulation, heavy vehicle road reform, maritime regulation and aviation safety.

The NT Government will continue to advocate to ensure that regulators understand and can accommodate issues impacting on remote and regional areas.

Road Safety is one of the Northern Territory Government's highest priorities. This is reflected in the development and release of the NT Towards Zero Road Safety Action Plan 2018-2022.

Towards Zero puts forward a vision of zero deaths and serious injuries on our roads and includes 49 priority actions. Towards Zero takes a holistic approach to reducing road trauma through the adoption of the safe system approach to road safety.



ACTIONS

PRIORITY	ACTIONS	TERM	NATIONAL ACTION PLAN
4 Regulation and Safety Improvements	4.1 Maintain a high productivity environment for the heavy vehicle industry.	Medium	
	4.2 Work with local industry and the National Heavy Vehicle Regulator and the Transport Infrastructure Council to harmonise regulations where practical for the NT to facilitate seamless operations across jurisdictional borders.	Short	
	4.3 Adopt the National Heavy Vehicle Law only when benefits to local industry in our remote and regional areas can be clearly demonstrated.	Medium	
	4.4 Complete the review of the NT Livestock Loading Scheme.	Short	
	4.5 Continue to work with the National Transport Commission, the Australian Government and Austroads to accommodate automated vehicles and emerging technologies in the future.	Short	
	4.6 Improve safety infrastructure across the NT's road network, including rest stops, barriers, signage, flood immunity improvements, and strengthening and widening roads.	Short-Medium	
	4.7 Implement findings of the review of the Ports Management Act and associated regulations supporting a high productivity port.	Short	
	4.8 Continue to work with Australian Government and jurisdictions on better measurements of freight and supply chain performance data to improve industry standards and productivity.	Short-Medium	
	4.9 Work with stakeholders to develop a co-management policy for biosecurity in the NT.	Short	
	4.10 Continue to advocate the NT's position for Land Transport Market Reform and Heavy Vehicle Road Reform.	Short	
	4.11 Continue to advocate for a balanced approach to remote and regional aerodrome safety regulations.	Short	
	4.12 Continue to provide efficient operations at the new Truck/ Heavy Vehicle Inspection Facility at the Transport Industry Precinct (Truck Central).	Medium	
	4.13 Continue to deliver the priority actions of the Towards Zero Road Safety Action Plan 2018-2022.	Short-Medium	

IMPLEMENTATION AND MONITORING

The Northern Territory Department of Infrastructure, Planning and Logistics will work collaboratively with all agencies, industry partners and other stakeholders to facilitate the delivery of the actions in this Territory-wide Logistics Master Plan. Progress will be monitored and reported to the Minister for Infrastructure, Planning and Logistics annually. In addition, the nationally significant projects in the Territory that have been identified in the National Freight and Supply Chain Strategy and National Action Plan will be reported through the Transport and Infrastructure Council.





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