

6.0 Planning Framework

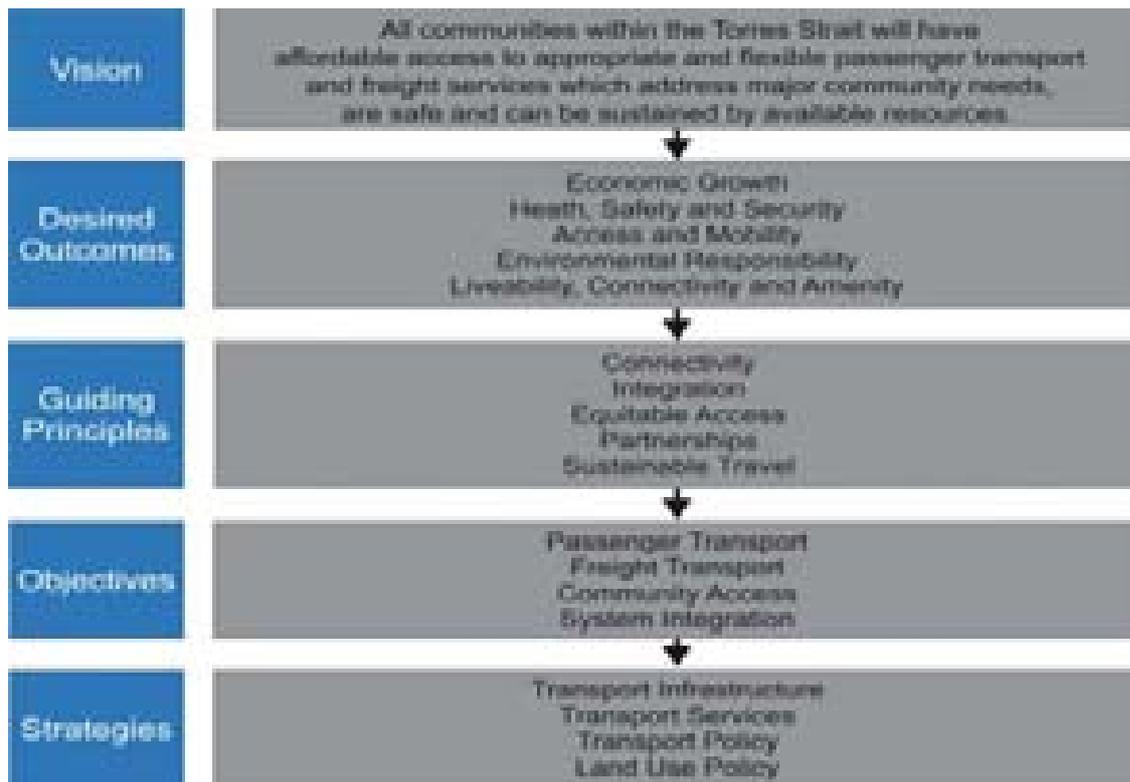
The integrated transport framework for Torres Strait:

- Highlights the relationship between transport and good economic, environmental and social outcomes of the Torres Strait community;
- Integrates the elements of the transport system drawing on the strengths of each mode and making the system work as a whole – an integrated network to connect people, places, goods and services;
- Integrates land use and transport strategies to:
 - influence overall demand for travel;
 - the distance people and goods need to travel;
 - the accessibility of destinations;
 - proportion of trips by individual modes; and
 - the cost of transport infrastructure;
- Integrates transport and other planning so that transport can contribute to achieving broader outcomes for the community such as improving access, creating jobs and conserving environmental values; and
- Engages and develops effective partnerships across governments, industry and the community to ensure needs, priorities and values of stakeholders are used to guide planning and decision making.

6.1 Planning Framework

The planning framework surrounding the TSTIP is illustrated in **Figure 6.1**. It has been derived from the Queensland Government's Integrated Transport Planning Framework for Queensland and has been tailored to suit Torres Strait.

Figure 6.1 Planning Framework



6.2 Vision

The development of the vision is an essential precursor to the development of the integrated transport strategy for the Torres Strait. This will allow the disparate sections of the transport picture to be brought together to ensure that the best use of the limited resources available is achieved in producing the desired transport system for the region.

The vision of the TSTIP is that:

- All communities within the Torres Strait will have affordable access to appropriate and flexible passenger transport; and
- Freight services, which address major community needs, are safe and can be sustained by available resources.

6.3 Desired Outcomes

The desired outcomes are outlined below. They were used as criteria to qualitatively assess the options, strategies and actions.

- a) An efficient and effective transport system to support economic growth across the Torres Strait;
- b) A transport system that maintains and enhances the health, safety and security of users and the wider Torres Strait community;
- c) A reasonable level of access and mobility of all Torres Strait islanders.
- d) A transport system that connects Torres Strait communities and contributes positively to the way islanders live, work and play; and
- e) A transport system that values, conserves and enhances the Torres Strait natural environment.

6.4 Guiding Principles

The following principles relating to the transport network in the Torres Strait have been identified from the review of existing policy documents and studies, target stakeholder consultation and assessment of the existing freight and passenger transport networks.

The guiding principles that have been developed for the TSTIP include:

- Connectivity;
- Integration;
- Equitable Access;
- Effective investment and partnerships; and
- Sustainable Travel.

Principle 1 – Connectivity

Co-ordinate access to infrastructure and services between islands and communities for passenger and freight movements.

Principle 2 – Integration

Bring together all transport modes in a cohesive transportation network and will consider transport planning as part of the land use planning and community development process.

Principle 3 – Equitable Access

Provision of equitable access for all residents via public transport, walking and cycling and facilitate affordable passenger and freight transport.

Principle 4 – Effective Partnerships

Pursue potential opportunities for private sector involvement in planning, providing and operating the transport system. In doing so, work across jurisdictions and boundaries to integrate planning and resolve competing issues and interests.

Principle 5 – Sustainable Travel

The TSTIP will minimise environmental harm and maintain environmental values by mitigating negative impacts of transport. Arrange services and infrastructure to facilitate economic sustainability.

6.5 Objectives

The objectives of the TSTIP are described below. Many of these objectives support multiple principles.

6.5.1 Passenger Transport

Even though the majority of the Torres Strait islanders use their dinghy, passenger movements also occur via ferries, buses, taxis and planes. Efficient and affordable travel is a key desired outcome for Torres Strait. Objectives are:

- To ensure passenger travel costs are affordable and equitable;
- To allow a reasonable level of access for passengers to each island;
- To work across jurisdictions and with the private sector to achieve efficiencies for passenger movements; and
- To integrate modes for efficient passenger movement.

6.5.2 Freight Transport

Freight of consumables and materials to the islands is of critical importance to the daily life of the Torres Strait islanders. Greater frequency of freight and reduction in freight costs would be the key desired outcome for Torres Strait. Objectives are:

- To ensure freight costs are equitable and minimised;
- To integrate freight and passenger movement by sea;
- To allow a reasonable level of freight access to each island;
- To work across jurisdictions and with the private sector to achieve freight efficiencies; and
- To integrate modes for efficient freight movement.

6.5.3 Community Access

Community access in the Torres Strait is reasonably well catered for, and some further improvements in land use, walking, cycling and transfer facilities, could provide improved community access. Objectives are:

- To ensure integration of transport planning with land use planning for managing travel demand;
- To ensure provision of appropriate standards of infrastructure for walking and cycling; and
- To ensure appropriate opportunities and standards for intermodal integration.

6.5.4 System Integration

There is a need to co-ordinate infrastructure and services across all modes to achieve system integration. Objectives are:

- To provide connections between modes and services for moving people and freight;
- To make use of improved technology for connecting freight and passenger transport networks;
- To introduce measures to increase the attractiveness of public transport, walking and cycling; and
- To develop and implement integrated policy positions.

6.6 Strategy

The TSTIP strategy includes a plan of action to implement the preferred transport system in the future. The TSTIP strategy entails retention of existing passenger and ferry services with additional infrastructure and consequent service improvements between Horn Island, Thursday Island and Seisia. The TSTIP strategy includes actions for improving transport infrastructure and services. In addition, there would be policy type actions for transport and landuse that would be considered in meeting the objectives of the TSTIP. The options that were assessed in terms of meeting the strategies are discussed in Section 8. The actions for infrastructure and service improvements to support the adopted strategies are listed in Section 8. The actions have been linked to the following four transport objectives:

- 1) Passenger transport – improve access and reduce travel costs;
- 2) Freight transport – improve freight facilities and efficiencies;
- 3) Community access – Improve access to community support activities (admin centre, shops) and ensure these are integrated with transport networks; and
- 4) System integration – connect the islands' communities and contributes to the way they live, work and play.

7.0 Options for the Transport System in 2026

The options for the transport system in 2026 were developed in consultation with study stakeholders. All options put forward by stakeholders were considered for assessment. The study did not specifically exclude any options from assessment.

It is difficult to predict what would be generating the major demand for freight and passenger transport in 2026. The futures that have been hypothecated and assessed in the study are:

- 1) Option A – Continuation of current arrangements;
- 2) Option B – Establish a second passenger and freight hub at a central island;
- 3) Option C – Hub and spoke arrangement for passenger transport by ferry;
- 4) Option D – Rail line from Cairns to Bamaga;
- 5) Option E – Option A with additional improvements; and
- 6) Option F – Sea transport proposal.

These travel futures are discussed in detail below. The analysis is of a broad nature and further analysis is suggested for Option E with additional improvements.

7.1 Option A – Continuation of Current Services

Description:

- Passenger and freight services hub out of Horn Island and Thursday Island;
- Coastal freighters ex-Cairns to Port Kennedy (Horn and Thursday Islands) and Seisia servicing Port Kennedy and NPA communities and transshipping to OTSI communities;
- Three landing barges on scheduled services plus chartered barges; and
- Single airline flying from Cairns to Horn Island and multiple airlines servicing the outer islands.

Impacts:

- Current services in place for some time;
- Parts of current services require improvement; and
- Vessels, aircraft and infrastructure require upgrading in time.

Table 7.1 Sea Transport – Negative Aspects

Freight:	<ul style="list-style-type: none"> • Currently single operator for regular barging operations; • Inflexible scheduling; • Fresh produce once a week only; • High cost of freight; • Delays due to adverse weather; • Capacity of existing barges; • Access to some island is restricted due to lack of water depth; and • No real passenger accommodation / sea transport.
Passenger Transport: (Public)	<ul style="list-style-type: none"> • No after hours transport between TI / Horn Island; • Coordination of travel modes e.g. Seisia ferry and QantasLink flights; • Lack of regular car ferry between TI / Horn Island.
(Private)	<ul style="list-style-type: none"> • Dinghy travel can be dangerous due to changing weather conditions and/or long distances travelled. • Lack of small boating facilities

Table 7.2 Sea Transport – Positive Aspects

Freight:	<ul style="list-style-type: none"> • Facilities already in place / proven system; • Barges can land on islands without dedicated facilities; and • Simple operation (hub and spoke).
Passenger Transport: (Public)	<ul style="list-style-type: none"> • Good service to Seisia during tourist season.
(Private)	<ul style="list-style-type: none"> • Dinghy travel is very flexible and highly used; and • Dinghy travel is very cost effective.

Air transport – negative aspects:

- Perceived lack of safety for travel within Torres Strait;
- Size of airstrips limits size / capacity of plane on outer islands;
- Restricted by day flying only;
- Length of Horn Island runway restricts capacity of planes (Dash 8 300 services only);
- Relatively high cost of travel to OSTI compared to other modes of transport; and
- Inadequate end of trip facilities.

Air transport – positive aspects:

- All airstrips to be sealed by end 2006;
- Regular fast service to Cairns and outer islands;
- Less affected by adverse weather than sea travel;
- Competition for travel around Torres Straits (i.e. several airline companies);
- Facilities for 24 hour emergency helicopter access with most including adequate lighting;
- System is capable of meeting significant growth by increasing flight frequency without costly infrastructure upgrades; and
- Very flexible, i.e. charters.

Land transport – negative aspects:

- Not all roads are sealed;
- Lack of public transport throughout Torres Strait; and
- Lack of connectivity for vehicle travel between Horn Island and Thursday Island.

Land transport – positive aspects:

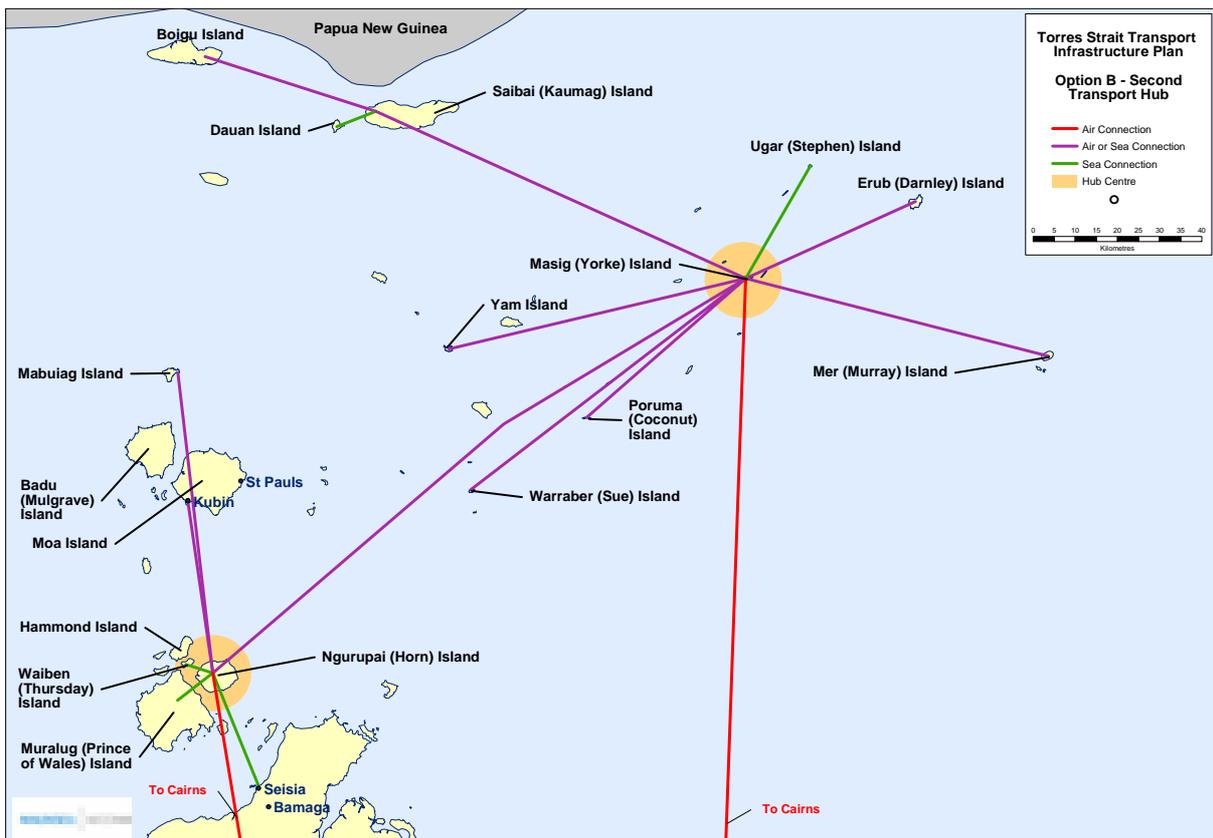
- Most communities have major roads sealed; and
- Low traffic volumes, especially on outer islands, so shared pedestrian/bicycle facilities are possible.

7.2 Option B – Establish a Second Passenger and Freight Hub at a Central Island

Description:

- Barges would travel directly to the central island, and freight for the outer islands would be transhipped and distributed through smaller barges as per the existing arrangement;
- Freight for the inner islands would continue to go directly to Port Kennedy; and
- Air travel could be directly from Cairns to the central island, with passengers taken to the outer islands via ferries or aircraft.

Figure 7.1 Option B – Establish a second Passenger and Freight Hub at a Central Island



Source for Base Map: MapData Sciences Pty Ltd

Impacts:

- Cost effectiveness;
- More central for some OTSI; and

- Existing facilities require upgrading and new facilities for some OTSI.

Negative aspects:

- Transshipping is still required;
- Require a dedicated ship to Cairns;
- Ship would cross through an additional quarantine zone;
- Duplication of the existing infrastructure already on Horn Island;
- Possible increased port charges and costs to support two freight hubs in the area;
- Limited land availability on central islands;
- Major environmental impacts due to the need for a large harbour to be constructed to service freight vessels.
- Ferry travel times if there is only one ferry per group of islands would be up to six hours, e.g. Yam / Yorke / Coconut / Warraber, hence each island (spoke), would require its own ferry;
- Existing facilities at most islands are not adequate for passenger ferry service;
- Size of ferry required for safety reasons, i.e. travel in seas up to 25kn for 60km, would be far greater than needed for passenger volumes;
- Major expenditure in recent years to upgrade the airstrips to a sealed standard; and
- The size of the runways is insufficient for large passenger aircraft.

Positive aspects:

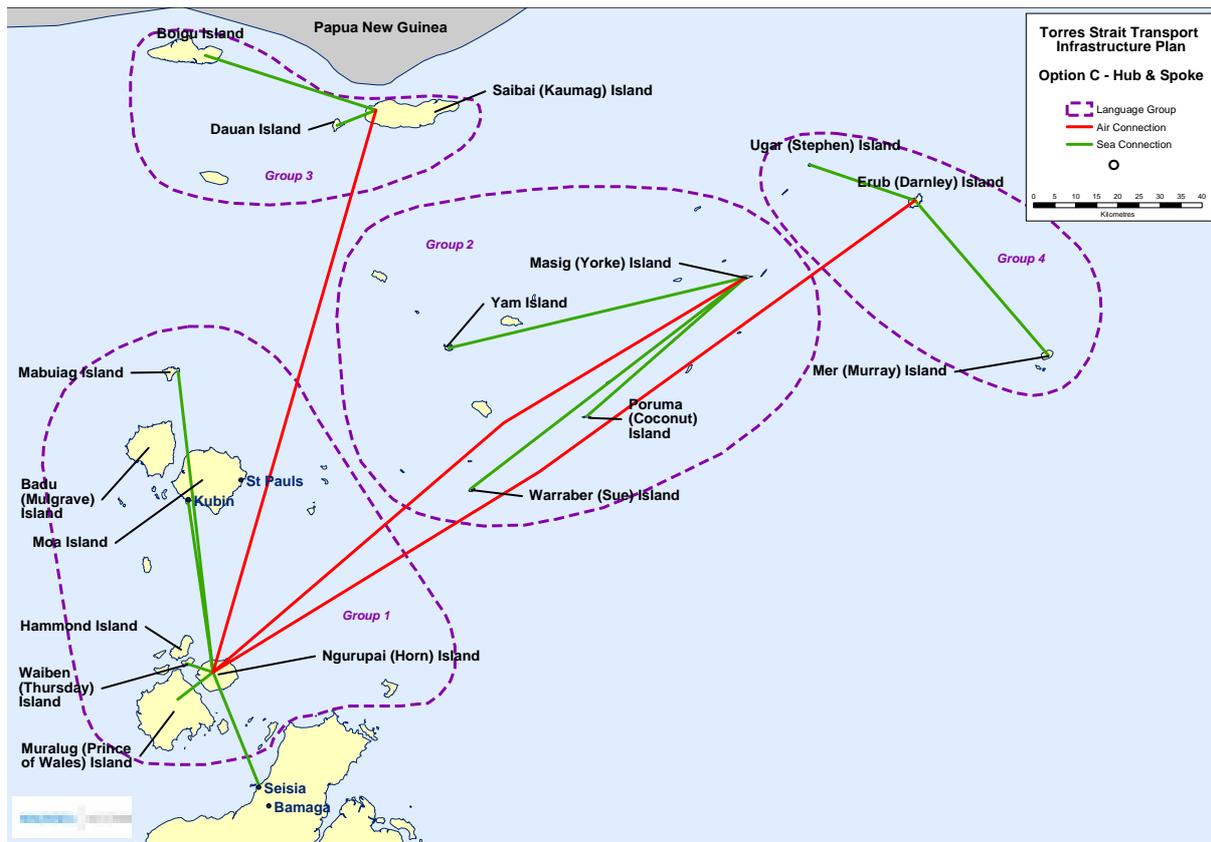
- Freight and passengers arrive at a location more central to their final destination.

7.3 Option C – Hub and Spoke Arrangement for Passenger Transport by Ferry

Description:

- Having a series of combined passenger and freight ferries (modified barges) operating in a hub and spoke arrangement; and
- The four ferries would each service the four groups of OTSIs, with a line service then connecting them to Thursday Island.

Figure 7.2 Option C – Hub and Spoke Arrangement for Passenger Transport by Ferry



Source for Base Map: MapData Sciences Pty Ltd

Impacts:

- Cost effectiveness;
- More central for some OTSI; and
- Existing facilities require upgrading and new facilities for some OTSI.

Positive and negative aspects would be similar to Option B.

7.4 Option D – Rail Line from Cairns to Bamaga

Description:

This option involves the construction of a rail line from Cairns to Bamaga, with a ferry / barge connecting people and freight to the Torres Strait islands.

Impacts:

- Significant high cost (\$2 billion) and very low benefits; and
- Additional transfer facilities.

Negative aspects:

- High construction cost versus low patronage and freight volumes;
- Native title issues in obtaining a rail corridor;
- High (\$30 million per annum) maintenance costs;
- High operational costs;

- Transfer of freight from rail to barge is required; and
- Construction of a new freight and passenger handling facility would be needed at Seisia.

Positive aspects:

- Safe and reliable passenger and freight transport to Seisia (with a need for ferries and barges similar to the existing arrangement); and
- Potential economic development and employment opportunities associated with the operation of services and construction and maintenance of infrastructure³.

³ Torres Strait Islanders have been involved in the construction of many railways in Australia.