

Understanding Transport Costs and Charges

Phase 1 – A Stocktake and Gap Analysis

Prepared by Transport Monitoring, Strategy and Sustainability, Ministry of Transport
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Foreword

The Understanding Transport Costs and Charges project follows up on the Surface Transport Costs and Charges (STCC) study released in March 2005. The STCC study provided some snapshot estimates of the total, average and marginal costs and charges associated with the road and rail networks for 2001-2002. The UTCC project aims to update such knowledge.

The UTCC adopts a two-phase process which consists of:

Phase 1 – a stock-take of the current domestic transport funding, charging and pricing arrangements for the road, rail and maritime transport sectors and a gap analysis to identify transport costs and charges information needs.

Phase 2 – data collection and estimation of costs and charges for the three modes.

Transport is an integral part of our daily lives. It facilitates the movements of goods and people, which helps us to meet our basic and social needs. However, transport also has negative impacts on society at a local, national, and global level. Understanding transport costs and charges is critical to developing effective transport policies that allow the transport industry to operate efficiently and minimise potential economic, environmental and social impacts on society.

Once completed, the UTCC project will be a significant resource for transport planners and policy practitioners. It will provide costs and charges information that is required for developing policies that encourage efficient use of the transport system over time. Such information will help us gain a better understanding of the full costs of the different modes of transport and will become an important data source that transport professions can use to consider various impacts associated with transport activities.

The Phase 1 report was prepared by Hyder Consulting (NZ) Limited. The Ministry of Transport would like to acknowledge New Zealand Treasury, Ministry of Economic Development, ONTRACK, KiwiRail (formerly Toll New Zealand), NZ Transport Agency (formerly Land Transport New Zealand and Transit New Zealand), Maritime New Zealand, Auckland Regional Council, Greater Wellington Regional Council, Christchurch City Council, Road Transport Forum, New Zealand Automobile Association, New Zealand Shipping Federation, Ports of Auckland and Port of Napier, for participating in the workshop forums and subsequent interviews.

This document provides a brief summary of the Phase 1 report and an outline of the way forward. We trust you find this summary useful.



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Introduction

1. Understanding transport costs and charges is critical to developing effective transport policies aimed at enabling the transport industry to operate efficiently, and minimise potential economic, environmental and social impacts on society.
2. Costs and charges information is required to facilitate policy development that aims to increase the potential for transport modes to be efficiently integrated. Once completed, the UTCC project will be a significant resource for transport planners and policy practitioners. Such information will enable us to gain a better understanding of the full costs of the different modes of transport and will become an important data source that transport professions can use to consider various impacts associated with transport activities. Costs and charges information will also assist evaluation of the effectiveness of government policy against pre-determined targets.
3. The three objectives for phase 1 of this project are:
 - to provide a broad understanding of pricing, charging and funding arrangements in the maritime, road and rail transport modes
 - to analyse the gap between costs and charges information requirements and the information that is either currently available or soon become available
 - to provide a recommended work plan for estimating and collecting the relevant costs and charges information.
4. Phase 1 of this project was commissioned to Hyder Consulting (NZ) Limited, in partnerships with Ian Wallis Associates Limited, Murray King and Francis Small Consultancy Limited and IPC & Associates Limited.
5. A mix of workshops and face-to-face and telephone interviews were carried out to identify costs and charges information gaps and priorities. The consultation process involved discussing the demand for costs and charges information for transport policy stakeholders given the current and forecast work programme. This information was then synthesised to form the overall priorities for collection.

Stakeholder engagement

6. The Ministry conducted a transparent and inclusive stakeholder engagement process to raise awareness of the project, as well as to allow stakeholders to offer views, comments and suggestions.
7. Four central government workshop forums (being Maritime, Road, Rail and Public Transport) took place at the Ministry between 8 May and 23 May 2008. Transport policy staff and technical specialists including staff from the Ministry of Transport,

NZ Transport Agency (formerly Land Transport New Zealand and Transit New Zealand), Maritime New Zealand, Treasury, ONTRACK and KiwiRail (previously Toll NZ) were invited to attend these discussion forums.

8. Following the workshop forums, a series of face-to-face or telephone interviews were also conducted, between 19 May and 13 June 2008, to discuss specific costs and charges information requirements in detail. These interviews involved:

- Central government New Zealand Treasury and various policy teams of the Ministry of Transport (including maritime, environment, safety and revenue and charging)
- Other transport agencies NZ Transport Agency, Ontrack and KiwiRail.
- Local bodies Auckland Regional Council, Greater Wellington Regional Council and Christchurch City Council
- Industry representatives New Zealand Shipping Federation, New Zealand Automobile Association, Road Transport Forum, Ports of Auckland and Port of Napier.

9. The purpose of the information gathering and consultation process was to:

- raise awareness of the project
- fill the information gaps about the current funding, charging and pricing arrangements
- understand costs and charges information needs for meeting policy development demand in order to achieve the objectives and targets of the New Zealand Transport Strategy 2008
- identify costs and charges information availability and gaps.

Stocktake of pricing, charging and funding arrangements

10. The differences in the level of commercial and government ownership in each of the maritime, road and rail sectors has led to differences in the level of pricing arrangements, annual government investment, externalities imposed, direct and indirect charges, and operating structures within each of the three transport sectors.

11. The UTCC Phase 1 report highlights the following major characteristics for each of the three transport sectors.

Maritime

12. The maritime sector in New Zealand plays a crucial role in the import and export markets. In 2006/07, 99 percent of New Zealand's import and export tonnage went by sea. Furthermore, this sector carries around 15 percent of inter-regional freight (in tonne kilometres) in New Zealand.
13. The maritime sector is largely commercial in nature. The majority of infrastructure providers and service operators are commercial organisations, although many ports have a high degree of local government ownership. This results in the sector being dictated by commercial charges between infrastructure providers, service operators and end users, with little government intervention or funding.
14. The level of commercial ownership in the maritime sector means that further costs and charges information collection may be difficult because of its commercial sensitivity.

Rail

15. The rail sector has experienced several significant changes of ownerships in recent decades. As of 1 July 2008, the government is the main provider of infrastructure (through ONTRACK) and the main operator (through KiwiRail Holdings Limited).
16. Due to a long period of neglect and deferred maintenance, additional investments are required to help improve the effectiveness of the rail network. As a result, the rail transport industry has a considerably higher level of government funding than the maritime industry.
17. The main charges in the rail transport industry are track access charges, freight charges and passenger transport fares. Track access charges are set by ONTRACK for all operators (including freight and passenger). The purpose of these charges is to recover the costs of operating the network. Operators then pass on the costs together with other operating costs to the end users of rail transport via freight charges and passenger transport fares.
18. Given KiwiRail has just commenced its operations in July 2008, it may be sensible to delay any data collection from this sector until mid to late 2009. As the development of the structure and management of KiwiRail matures, we would expect better availability of costs and charges information than in the past.

Road

19. The road transport industry has a mixture of government and private ownership. The public good characteristics of road infrastructure and the history of, and legislation surrounding, public road provision means that the government is the provider.

20. Service providers, however, are private individuals and organisations. The result is that costs and charges within the road transport industry are a mixture of private and government charges. The government places charges on the user of transport infrastructure through motor vehicle registration and licensing, road user charges and fuel excise duty.
21. Private users also incur costs of ownership and maintenance of operating their vehicles on the transport network. The remaining charges are between private service providers and end users (eg freight charges or passenger transport fares).
22. Due to the government's high level of involvement in the rail and road transport modes, the costs and charges information is more readily available and easier to collect.

Gap analysis

23. The major conclusion that comes from the consultation process is that a consistent evaluation framework and methodology for estimating costs and charges information would be required before any information is collected. This work is essential for establishing consistent cost estimates for different modes and therefore is of the highest priority.
24. In addition, the consultation process resulted in specific costs and charges information which is required by transport policy and industry stakeholders. The specific information requirements fall into five broad areas:
 - Transport infrastructure costs.
 - Operator costs and charges.
 - User costs and charges, including time and reliability.
 - Social and environmental costs.
 - Revenue and funding.
25. The evaluation framework and methodology for collection should also align the specific information requirements with the particular area of government policy. This will determine the level of detail and segmentation required to satisfy user requirements. The gap analysis was conducted by mapping costs and charges components with six overlapping areas of government policy strategies and targets:
 - Mitigation and intervention.
 - Modal shift analysis.
 - Modal cost comparability.
 - Funding policies.
 - Cost recovery.
 - Charging policies.

26. The following criteria have been used for identifying costs and charges information gaps and priorities:

- Is the information a priority for policy development and evaluation based on stakeholder requirements and government policy documents?
- Is the information available or soon to be available from other sources?
- Is it practicable to collect (taking account of technicality, time and budget issues)?

27. Based on the importance of each information gap to policy development and evaluation and the practicality of collection, this report groups the information gaps into four categories (Figure 1).

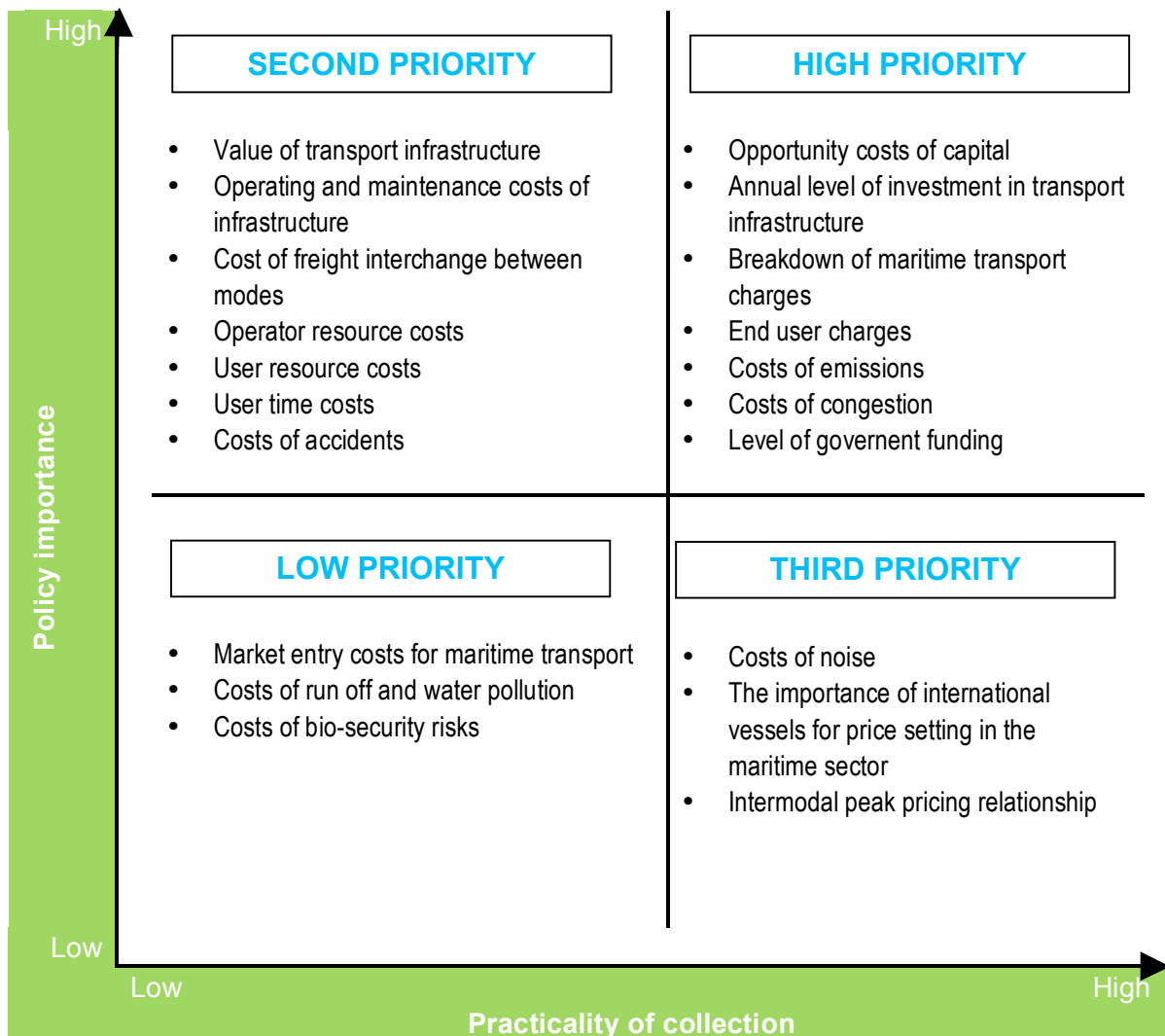
28. The upper right quadrant of Figure 1 shows the information gaps that are of high policy importance and high practicality of collection, and therefore should be collected first. Conversely, the information gaps shown in the lower left quadrant are of least priority and low practicality of collection and should be collected last.

29. The stakeholders engagement process also identified information that is outside the scope of the UTCC project, which include:

- factors influencing transport demand, including demand elasticity
- benefits of transport consumption eg agglomeration benefits and option value benefits
- costs and charges in the air transport mode.

The Phase 1 report recognises that these information gaps are important components for understanding the impacts of costs and charges on transport demand, modal choice (including aviation) and developing efficient and effective government policy. Therefore, these gaps will be evaluated at the end of the project to ensure that they have been collected elsewhere, to the level of segmentation required.

Figure 1: Prioritising information gaps



Recommended work plan

30. The Phase 1 report states that a critical success factor for an effective work plan is that costs and charges information is collected in the correct sequence so that conclusions can be drawn as early as possible.

31. The comparable evaluation framework for collection and estimation of costs and charges information is of highest priority and is required before any information can be collected. It should, therefore, be completed first. This framework will allow the costs and charges within each transport mode to be collected and compared consistently and correctly.

32. In terms of costs and charges information, the Phase 1 report has the following recommendations:

- Freight and public transport end user charges can be collected first (and while the framework is being completed) because this information is observed and does not require a large framework prior to information collection. This information can provide the first step in carrying out modal comparison analysis.
- The maritime transport industry estimates should be completed before other transport modes due to the lack of costs and charges information for this sector. This information can be used to compare with information currently available in the other transport modes to allow early conclusions to be drawn.
- Selected case studies should be completed after the collection of other costs and charges information to understand the marginal costs of transport to the correct level of segmentation. The case studies can also collect any residual costs and charges information gaps that could not previously be collected due to methodological constraints.
- Collection of costs and charges information should be grouped into broad areas (such as externalities and end user charges etc) so that the methodology is used consistently within the broad areas to ensure robust conclusions can be drawn.

33. The Phase 1 report notes that throughout Phase 2 of the project, further work is needed to:

- develop more detailed specifications of the costs and charges information and the segmentations required before it will be possible to judge the efficiency of providing the data
- conduct further consultation to confirm whether stakeholders are willing to provide the identified information at the level of segmentation and detail required
- access the relative need for collecting information gaps that are particularly difficult or expensive to collect.

The way forward

34. The Ministry will consider the recommended work plan proposed in the Phase 1 report and make necessary amendments to fully account for budget and resource constraints. Throughout the process of Phase 2, the Ministry will closely monitor its progress. It will continue to assess any needs to make necessary refinements to the scope of the project and the level of segmentations. This will help ensure

information gaps that are of high policy importance can be filled in an efficient and practical manner.

35. As the information requirements spread across different modes and topics, it may not be realistic to expect all information identified in the Phase 1 report to be collected under the UTCC project. It may be more effective for the NZ Transport Agency to collect certain items under its research programme. The Ministry will work closely with the transport sector to ensure information is collected efficiently and to avoid duplication of data collection.

36. An indicative immediate action plan for 2008/09, in order to achieve the targeted completion date by December 2010, is provided in Table 1 below.

Table 1: Immediate Phase 2 action plan

Description	Indicative time line
Develop consistent evaluation framework and methodology for estimating costs and charges	December 2008 – September 2009
Collection of transport charges information	February 2009 - September 2009

Concluding remarks

37. Following the release of the Surface Transport Costs and Charges (STCC) report in 2005, the Ministry received several major criticisms of the STCC study. The source of these criticisms came mainly from misperception of the defined objectives and scope of the study; misinterpretations of results, and unwarranted comparisons between modes. The UTCC Project will address these issues by:

- completing a detailed comparable consistent evaluation framework for estimating costs and charges
- continuing to carry out consultation with government policy and industry stakeholders in the transport industry.

38. The UTCC Phase 1 only provides a work plan for updating our knowledge in transport costs and charges for the three transport modes. Actual data collection and analysis is yet to be conducted. As there is a vast amount of information to be collected or estimated, the success of this project will depend on the level of cooperation and collaboration both within the Ministry and with our key stakeholders and information providers. The Ministry looks forward to working with the transport agencies and industry to complete this important task.