

Objectives and Problems

TAG Unit 2.2

DRAFT

FOR CONSULTATION

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Department for Transport

Transport Analysis Guidance (TAG)

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1 Objectives and Problems

1.1 Introduction

- 1.1.1 In developing a transport strategy or plan it is essential to be clear as to what the strategy or plan is designed to achieve. The answer to this question can be expressed at varying levels of generality or detail, from broad statements of vision, through strategic objectives, to more specific objectives and lists of problems to be overcome.
- 1.1.2 Stated objectives serve several functions. They help to identify the problems to be overcome, both now and in the future. They provide guidance on the types of solution which might be appropriate and the locations in which they are needed. They act also as constraints, in clarifying what should be avoided in pursuing any particular solution. Finally, they provide the basis for appraisal of alternative solutions, and for monitoring progress in implementation.
- 1.1.3 Almost inevitably, it will not be possible to satisfy all of the objectives which are identified in this way. In principle, it would be helpful, not just to have a clear understanding of the overall objectives, but also to be able to specify their relative importance, so that conflicts can be readily resolved. However, priorities between objectives are a matter for political judgement which is exercised by the decision-maker on the basis of the appraisal information against each of the objectives.
- 1.1.4 This TAG Unit deals with:
- the Government's goals¹ for transport;
 - local and regional objectives;
 - objectives and targets; and
 - problems.

1.2 The Government's Goals for Transport

- 1.2.1 In **Delivering a Sustainable Transport System: Main Report (DaSTS)** (DfT, 2008b) the Department set out five broad goals for transport. These are:
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of **tackling climate change**;
 - To **support** national **economic** competitiveness and **growth**, by delivering reliable and efficient transport networks;
 - To **promote** greater **equality of opportunity** for all citizens, with the desired outcome of achieving a fairer society;
 - To **improve quality of life** for transport users and non-transport users, and to promote a **healthy natural environment**; and
 - To contribute to **better safety, security and health** and longer life-expectancy by reducing the risk of death, injury or illness arising from transport, and by promoting travel modes that are beneficial to health.
- 1.2.2 For convenience, this Unit refers to these goals subsequently as:

¹ Current (September 2009) Government policy documents use the words 'goals' and 'challenges', rather than 'objectives' and 'sub-objectives'. We have adopted the same terminology for NATA, for consistency.

- Tackle climate change;
- Support economic growth;
- Promote equality of opportunity;
- Improve quality of life and promote a healthy environment; and
- Better safety, security and health.

- 1.2.3 The Department's rationale for each goal is described more fully in **Delivering a Sustainable Transport System** (DfT, 2008a).
- 1.2.4 Beneath each of the five goals sit a number of 'challenges' that serve two purposes. They set out in more detail to stakeholders, particularly those involved in transport or land use planning, where the Department is looking for progress under each goal. And they provide a checklist against which emerging options can be tested to identify the best strategies and plans. The finalised set of challenges is published in Annex B of **Summary of Responses to the Consultation on Delivering a Sustainable Transport System: Planning for 2014 and beyond** (DfT, April, 2009).
- 1.2.5 *DaSTS* identifies three main types of network – city and regional, national and international – as the basis for option generation. It provides challenges for each type of network and for cross network (national policy) measures. While some of the challenges are the same for all four categories, others only apply to some of the categories, while others differ in the way they are specified for each category. This variation is not appropriate for appraisal. For appraisal purposes, comparability across networks is important. It is also important to avoid the additional costs and time required to develop network-specific modelling and appraisal tools. Finally, consistency of approach will minimise the demands on analysts. Thus, for appraisal purposes, 'network neutral' NATA challenges have been devised, based on the *DaSTS* challenges.
- 1.2.6 When carrying out appraisals, analysts will wish to bear in mind the network that is the focus for the intervention being considered and the precise specification of the *DaSTS* challenges identified for that network. However, they will also need to ensure that significant impacts on challenges not identified for that network are not overlooked. For example, if an intervention focussed on the national network would have a significant impact on the urban environment, that impact should not be overlooked.
- 1.2.7 The NATA challenges underlying each goal and their relationship to the *DaSTS* challenges are discussed below. The way in which these challenges relate to the analyses usually carried out during the appraisal of interventions is also discussed here and in TAG Unit 3.2, Appraisal.

Tackle Climate Change

- 1.2.8 Averting dangerous levels of climate change presents one of our biggest challenges. It is important that the impact of an intervention on greenhouse gas emissions is assessed during appraisal, and that due account is taken of the intervention's contribution to meeting our targets to reduce carbon.
- 1.2.9 In *DaSTS*, the cross network, city and regional networks and national networks challenges all focus on the delivery of 'quantified reductions in greenhouse gas emissions ...'. Thus, for appraisal, only one challenge – **reduce greenhouse gas emissions** - is required to reflect the impact on climate change of proposals in these networks. Although the

challenges for international networks are different, the same analysis is considered to be suitable as an assessment of the extent to which a transport intervention addresses those challenges.

- 1.2.10 Ever since it was first developed in 1998, the NATA Appraisal Summary Table has reported the impact on greenhouse gas emissions associated with an intervention. Over time modelling and appraisal methodologies have improved. In particular, in 2006, guidance and supporting software was issued which required promoters to apply the then social cost of carbon to the greenhouse gas emissions for reporting in the Appraisal Summary Table. In July 2008, this guidance was updated to reflect advice on application of the new shadow price of carbon.
- 1.2.11 Monetising the impact of the carbon emissions is important to getting transport decisions right. Monetisation sends a clear and consistent signal to decision makers and promoters of interventions about the weight that should be given to an impact and ensures that due account is taken of the effect. The Department will continue to work with partners across Government to ensure a consistent approach to appraising climate change impacts.

Support Economic Growth

- 1.2.12 **The Eddington Transport Study** (DfT,2006) demonstrated that there 'has been a compelling link between the transport system and prosperity throughout history' and that this continued to hold true for the UK. Transport's key economic role today (and in the future) is to support the success of the UK's highly productive economic centres in the global marketplace and to enable the efficient movement of goods and people.
- 1.2.13 For appraisal purposes five NATA challenges have been identified for this goal:
- Improve reliability;
 - Improve connectivity;
 - Support the delivery of housing;
 - Enhance resilience; and
 - Wider (economic) impacts
- 1.2.14 The need to maintain or **improve** the **reliability** and predictability of journey times is relevant to all network types. Unpredictable travel times have a direct efficiency impact on the economy. They cause transport users to either depart early to avoid late arrival, or risk the costs of late arrival in order to avoid the wasted time associated with leaving early. Either way they have an impact on economic productivity which should be captured in appraisal.
- 1.2.15 In the past guidance has recommended a qualitative assessment of reliability improvements but research into the estimation and valuation of these impacts has led to the development of a monetised approach. Research into transport users' perceptions of, and reactions to, unreliability will continue, with the aim of further improving the techniques for capturing the value of reliability improvements within the appraisal process.
- 1.2.16 The concept of connectivity can be interpreted as the expectation that journeys can be made within a reasonable time and at reasonable cost. What is 'reasonable' is, clearly, open to debate. However, it seems unlikely that congestion and high costs could be regarded as reasonable. Thus, the analysis required to assess whether an

intervention will **improve connectivity** focuses on end to end journey times and money costs.

- 1.2.17 This is the basis for current transport economic efficiency (or transport user) benefit analysis. Models are used to estimate future journey times, fuel consumed and money costs for with and without intervention scenarios. These are used to estimate monetised impacts using standard welfare economics techniques. These monetised impacts are considered to provide a satisfactory basis for the summary assessment of the **improve connectivity** challenges.
- 1.2.18 Before moving on, it is important to note that these two challenges (**'improve reliability'** and **'improve connectivity'**) are restricted to business and commuting journeys ONLY – they do NOT include impacts for non-work, non-commuting journeys. Improvements in reliability and connectivity for non-work, non-commuting journeys are included in the assessment of the 'Improve access to leisure' challenge within the Improve Quality of Life goal (see below).
- 1.2.19 In the Housing Green Paper **Homes for the future - more affordable, more sustainable** (CLG, 2007), the Government outlined plans to deliver three million new homes by 2020. As part of these plans, the Department for Communities and Local Government (CLG) and the Department for Transport (DfT) set out a joint commitment to develop a methodology to better capture the economic benefits generated by new housing developments and thus **support the delivery of housing**, for inclusion in the New Approach to Appraisal (NATA).
- 1.2.20 The development of new housing can place considerable pressure on transport networks, and in some instances the best combined transport/land-use planning solution involves providing additional infrastructure to accommodate the new demand. New guidance has been released that provides a recommended approach for (a) identifying when a housing development is contingent on the provision of new infrastructure, and under these circumstances (b) reporting the benefit arising from the new housing.
- 1.2.21 The need to **enhance the resilience** and adaptability of networks to shocks and impacts such as economic shocks, adverse weather, accidents, terrorist attacks and impacts of climate change is relevant to all network types. Resilience may be differentiated from reliability as potentially longer and more serious disruptions to transport requiring cross-modal planning. We are working with partners across Government to establish a consistent approach to appraising the benefits that accrue from ensuring the resilience of our infrastructure.
- 1.2.22 Another area in which we have made significant advances in recent years is in our understanding of how reliable and efficient transport links can support productivity and competitiveness. **The Eddington Transport Study** (DfT, 2006) highlighted potential gains from 'agglomeration economies' where firms and workers benefit from being located close together. Where firms and workers have good access to each other they are likely to benefit from easier access to suppliers, better functioning labour markets, and the sharing of knowledge and expertise. Productivity gains that result from agglomeration may help to support the provision of world class products and services. Improving transport for workers, businesses, and goods may therefore improve productivity and our international competitiveness. Guidance on estimating these impacts has been released. To minimise the additional effort associated with estimating these **'wider (economic) impacts'** software to carry out the necessary analyses has also been developed.

1.2.23 It is important to recognise that our use of the term 'wider impacts' is restricted to wider **economic** impacts. The term 'wider impacts' may lead to some confusion in the wider appraisal community – environmental analysts have, for many years, argued that transport interventions often have wider indirect and/or cumulative environmental impacts than are considered in NATA. To avoid confusion, the wording used for the NATA challenge is 'wider (economic) impacts'.

Promote Equality of Opportunity

1.2.24 The Social Exclusion Unit's 2003 report **Making the Connections** (Social Exclusion Unit, 2003) emphasised the important role of transport in social exclusion and set out the Government's strategy for improving access to jobs and key services to reduce social exclusion. It also outlined the Department's responsibility for the strategy at the national level. To address the challenge of increasing social inclusion the Equality of Opportunity goal is 'to promote greater equality of transport opportunity for all citizens, with the desired outcome of achieving a fairer society'.

1.2.25 The need to enhance social inclusion is a challenge for all networks, to be achieved by improving accessibility, availability, affordability and acceptability. With this goal in mind we have identified two groups of challenges. The first reflects 'people' focused social considerations:

- improve accessibility.
- Improve affordability
- Reduce severance

1.2.26 The second reflects wider geographically oriented equity, 'place' focused considerations:

- enhance regeneration
- reduce regional economic imbalance.

1.2.27 In addition to ensuring appraisal explicitly addresses both groups of challenges underlying the Equality of Opportunity goal, it is important for appraisal to incorporate an overarching consideration of a scheme's impact (both positive and negative) on potentially vulnerable social groups (e.g. low income households, older people) across other goals. In this way appraisal will enable consideration of both the impact of a scheme on key challenges relevant to improving social inclusion, and will also ensure inequalities between groups are identified, for example, in exposure to noise or risk of death or injury resulting from a scheme.

1.2.28 The Department's work to incorporate social and distributional impacts into appraisal aims to improve the extent to which proposed schemes are appraised in line with the Equality of Opportunity goal. This work has developed a proportionate methodology for assessing and capturing these impacts and is outlined in TAG Unit 3.17, **Social and Distributional Impacts of Transport Interventions**. New guidance has been developed to help assess impacts of a transport scheme that have not previously been investigated (e.g. guidance to assess whether a transport intervention will **impact on accessibility and affordability**). In other areas, existing guidance (e.g. on **severance**) has been revised to ensure the social and distributional impacts are captured.

1.2.29 Regeneration benefits of interest to the Department reduce the disparity of the life chances of those living in the most deprived areas and people who live elsewhere. **Enhancing regeneration** is attributable to the

number of net additional jobs accruing to residents of regeneration areas. The current NATA guidance on the estimation of regeneration impacts is being re-examined to reconcile analysis of wider (economic) impacts and regeneration benefits and to ensure that the methodology is fit for purpose.

- 1.2.30 For the **reduce regional economic imbalance** challenge analysis will draw upon data that is already generated as part of the appraisal of the economic impacts of schemes to consider the contribution of a scheme to address regional disparities in terms of both levels and growth rates of economic activity. To minimise the additional burden associated with this NATA analysis, Existing appraisal software tools have been modified to calculate the benefits that fall to each of the regions affected by the intervention.

Improve Quality of Life and Promote a Healthy Natural Environment

- 1.2.31 DaSTS groups these challenges together under five broad headings:

- **reduce** people's **exposure to noise**;
- minimise the impacts of transport on the natural environment, heritage and landscape;
- **improve** people's **experience of travel**;
- **improve** streetscapes and **the urban environment**; and
- create opportunities for social contact and **access to leisure**.

- 1.2.32 These headings provide the basis for the NATA challenges under this goal.

- 1.2.33 Analysis of the extent to which interventions **reduce exposure to noise** have been established practise for many years and the Department now expects quantified and monetised noise assessments. We have also released guidance on looking at this challenge from a distributional perspective and whether impacts affect the quality of life for different social groups or areas.

- 1.2.34 Transport appraisal guidance on measuring impacts on the natural environment, heritage and landscape is relatively advanced, particularly in the advice presented in the Highways Agency's **Design Manual for Roads and Bridges, Volume 11 (Environmental Assessment)** (HA, 2008). The Department provides TAG guidance on environmental capital based assessment techniques for landscape, heritage, water and biodiversity impacts. Currently, these impacts are assessed separately, leading to separate qualitative assessments for each. Because these assessments are not necessarily comparable and cannot easily be combined (see TAG Unit 3.3.6, [The Environmental Capital Approach](#)), for appraisal purposes this heading has been subdivided into four NATA challenges, corresponding to the four categories of analysis currently in practical use:

- **Minimise impact on biodiversity**;
- **Minimise impact on the water environment**;
- **Minimise impact on heritage**; and
- **Minimise impact on landscape**.

- 1.2.35 NATA provides guidance on the analysis of the extent to which interventions **improve** people's **experience of travel**. Three different aspects are covered:

- Impacts on the ambience of a journey, which includes effects such as crowding on trains;
- Impacts on transport interchanges; and
- Impacts on options that are available to people but which they do not use.

1.2.36

1.2.37 Guidance is also provided on the analysis of the extent to which interventions **improve the urban environment** since 2000 (**Guidance on Methodology for Multi-Modal Studies**, DfT, 2000) The techniques to assess what people think about the 'public realm' are improving and incorporating best practise into appraisal may assist in ensuring comparability of proposals.

1.2.38 The importance of improved connectivity and reliability for business and commuting journeys to the goal of supporting economic growth has been discussed above. However, improved connectivity and reliability for leisure and personal business purposes is also important. Good connectivity and reliability are key factors in enabling people to access a wide range of goods and services, enjoy leisure activities, spend time with friends and relatives and have access to the natural environment. Thus, analyses of the extent to which interventions improve connectivity and reliability for non-work, non-commuting journeys are considered to be suitable for assessing the challenge 'create opportunities for social contact and **improve access to leisure**'.

Better Safety, Security and Health

1.2.39 NATA challenges under this goal fall into three broad areas. Firstly, the safety challenge looks at the risk of a fatality or injury resulting from transport accidents. The second challenge, on health, considers the improvement of health through choosing more active modes and the impacts on health of air quality. The third, on security, considers challenges due to personal traveller security and the need to reduce the terrorist threat.

1.2.40 The resulting NATA challenges are:

- **Reduce the risk of death or injury** resulting from transport accidents;
- **Improve the health** of individuals **through** encouraging and enabling travel involving **physical activity**;
- **Reduce the air quality** social and economic **costs** of transport to public health;
- **Reduce vulnerability** of transport networks **to terrorism**; and
- **Reduce crime**, fear of crime and anti-social behaviour on transport networks.

1.2.41 Transport modelling allows the analyst to determine the traffic induced changes in accidents for proposed road schemes. Similar analysis is available in other modes. These analyses will inform the assessment of impacts on the NATA challenge '**reduce the risk of death or injury**'.

1.2.42 Analysis to inform the assessment of impact on the NATA challenge '**improve health through physical activity**' has been developed relatively recently. The method for calculating this benefit is taken from the World Health Organisation project Quantifying the Health Effects of Cycling and Walking (2007) and its accompanying model, the Health Economic Assessment Tool for cycling (HEAT).

- 1.2.43 For the NATA challenge '**reduce air quality costs**', again, modelling and appraisal is advanced related to air emissions.
- 1.2.44 However, analysis of the impact of interventions on **Reduce vulnerability to terrorism**' is relatively weak. The Department will seek to enhance analytic capability in this field.
- 1.2.45 Finally, analysis of the impact of interventions on '**reduce crime**' is available.

1.3 Local and Regional Objectives

- 1.3.1 More specific objectives are set at the regional level through Regional Transport Strategies as explained in Annex B of **Planning Policy Statement 11: Regional Spatial Strategies** (CLG, 2004). Among other things, these set priorities for transport investment across all modes, to support the objectives of the spatial strategy for the region. Outputs from the regional planning process should include integrated planning and transport proposals and objectives for both the major transport corridors and major urban areas.
- 1.3.2 Locally-specific objectives are set out in Local Transport Plans, Local Development Frameworks, Sustainable Community Strategies and Local Area Agreements, and the plans of transport providers in the study area, and other local policy documents. Studies must reflect these local and regional objectives, and show how transport options can support them.

1.4 Objectives and Targets

- 1.4.1 Objectives may be couched in general terms so that all they do is indicate the desired general direction of change; for example:
- to reduce the environmental nuisance caused by traffic.
- 1.4.2 They may also be couched in more specific terms which include the notion of a **target**; for example:
- to reduce traffic noise to below 68dB(A) in residential streets; or
 - to reduce carbon monoxide levels to below 8.5 parts per million; or
 - to reduce nitrogen dioxide levels to below 70 parts per billion.

There are advantages in this kind of more specific objective. It is clear when any one objective has been achieved and the degree of achievement can be measured by the extent to which conditions differ from the target.

- 1.4.3 However, the approach has considerable dangers. Using the example in the previous paragraph, the three objectives imply an equivalence between a noise level of 68dB(A), a carbon monoxide level of 8.5ppm, and a nitrogen dioxide level of 70ppb. A full set of detailed objectives containing targets which cover all the aspects of the five Government objectives would imply many more equivalences of this kind. In theory, this may seem a reasonable approach, but the key difficulty lies with establishing targets which imply the correct emphasis or importance of one objective in relation to another. In principle, it would be possible to derive a set of targets that people accepted as consistent through social research techniques, but the more objectives are involved the more difficult would such an exercise become.

- 1.4.4 In concept, of course, an objective specified in terms of a target is little different from a problem identified using a threshold. For example, an objective to reduce noise levels in residential areas to below 68 dB(A) amounts to the same as a problem identified as a noise level above 68 dB(A) in a residential area. The two concepts are sides of the same coin. Problem identification is discussed in the next section.

1.5 Problems

- 1.5.1 Problems may be identified in a number of ways, including:

- by **consulting** people about their perceptions of the problems, both those that they encounter when travelling and those which result from other people travelling;
- by **consulting** representatives of the regional and local authorities and the transport providers to gain an understanding of the transport and planning professional's perceptions of problems with the transport system (also see Step 4 below);
- by conducting **audits** of specific elements of the transport system in order to gain a deeper understanding of the roles performed and to analyse the extent to which the expected aims are not met; and
- by **objective analysis** of problems through analysis of outputs from the transport model in comparison with thresholds so as to enable the geographic display of the worst conditions on a consistent numerical basis across the study area.

- 1.5.2 **Consultation** can be a useful approach, however, people will naturally have more reliable views about current problems than those predicted to occur at some future date. Problem identification through consultation is therefore of most use in the base or current year.

- 1.5.3 **Audits** can be useful ways of exploring in some depth particular aspects of the transport system. Again, however, their focus is on the current situation and past history so that trends can be identified, rather than on speculations about the future. Examples of elements of the transport system which may be suitable for detailed audits include:

- the local public transport system;
- the national rail system insofar as it affects the particular study area;
- the trunk road system; and
- the local parking system.

- 1.5.4 Audits should be conducted by experts in the particular aspect of the transport system being audited. As an example, the aims of an audit of the local public transport system might be:

- to describe the current services in detail in terms of routes, frequencies and fares;
- to identify the operators providing each service;
- to identify which services are run commercially and which are provided through support from the local authorities;
- to analyse the quality of the services provided in terms of type and age of vehicle;

- to assess service reliability, including factors which affect reliability, such as availability of vehicles and staff; and
- trends in factors such as vehicle-kms operated, passenger-kms carried, fares and levels of subsidy.

The general aim is to develop a detailed understanding of the services currently provided and the financial and institutional framework that applies.

1.5.5 **Objective (or systematic) analysis** of problems lies at the heart of a problem-oriented approach to transport planning. A comprehensive list of types of problem can be achieved using the framework provided by the Government's five goals for transport.

1.5.6 Objective analysis of problems requires the adoption of thresholds. The idea is that when a condition is measured or predicted to differ from a threshold, then a problem is said to exist. A range of thresholds can be set, so that problems may be graded by **severity**. Thus, for example, noise levels which exceed, say, 68dB(A), 72 dB(A) and 76 dB(A) would be classed as, say, 'slight', 'moderate' and 'severe' noise problems.

1.5.7 This approach is, of course, not without its difficulties. By labelling problems of different types which are of a particular severity with the same label, an equivalence is being implied between problems of that severity. Thus, for example:

- if a noise level in excess of 68 dB(A) but less 72 dB(A), say, were to be classed as a 'slight' noise problem, and
- if a carbon monoxide levels in excess of 8.5 ppm but less than 15 ppm, say, were to be classed as a 'slight' air quality problem,

then this would imply an equivalent importance of the noise range 68 to 72 dB(A) and the carbon monoxide range 8.5 to 15 ppm. The danger from such implied equivalences needs to be recognised. Evidence from consultations may be used to establish the relativities of the thresholds so that the thresholds and severity gradings reflect local opinions about problems of different kinds.

1.5.8 A further dimension to the analysis of problems is their **magnitude**. This would normally be measured based on the numbers of people affected. Problems should be classed by both severity and magnitude. A severe problem which affects no one would not be one for which a solution would be necessary. A solution to a slight problem which affected many people could, on the other hand, be much more worthwhile.

1.5.9 When thresholds are defined, they can be used, with current data, to identify the locations, times of day, and groups of traveller or resident for which problems currently occur. Given an appropriate predictive model, a similar exercise can be conducted for a future year. The model can also be used to assess whether a strategy will overcome these current or future problems, and whether it will induce new ones.

1.5.10 The strengths of the approach in which problems are identified using an objective or systematic analysis are that it enables:

- problems to be identified across the study area on a consistent basis, on a geographical background for ease of appreciation;

- problems to be identified for the future years on the same basis as the base year (and these can be validated against local people's opinions through consultation); and
- the effectiveness of the option being tested can be assessed by checking how well the problems at which the intervention was aimed would be ameliorated.

1.5.11 It is crucial to recognise that this approach may only show problems as symptoms. Some analysis of the underlying causes of the problems should always be considered. For example, it should not be assumed that a congestion problem can be solved by adding extra capacity at the location concerned. Other solutions, such as traffic reduction measures or road improvements elsewhere to take through traffic away from the problem area, may be more appropriate and may only be revealed by analysis of the causes of the problem.

1.5.12 It is attractive to think that consistency between studies could be ensured by adopting the same thresholds for the same types of problems throughout the studies. However, this is considered impractical and unnecessary - impractical because it is very unlikely that a single set of thresholds could be established to which there would be general agreement - and unnecessary because the Steering Groups and the public in the various study areas may have different ideas as to the relative importance and seriousness of different types of problem. Thus, while consistency in the way in which the information for the AST is derived is regarded as essential, locally determined problem analysis is how the local perspective can be introduced to the appraisal process.

2 Further Information

The following documents provide information that follows on directly from the key topics covered in this TAG Unit.

For information on:	See:	TAG number:	Unit
Steps in the Process	Steps in the Process – Overview	TAG 2.1.1	Unit
	Option Development	TAG 2.1.2	Unit
	Further Appraisal	TAG 2.1.3	Unit
	Implementation, Monitoring and Evaluation	TAG 2.1.4	Unit
Strategic Environmental Assessment	Strategic Environmental Assessment for Transport Plans and Programmes	TAG Unit 2.11	
Appraising multi-modal options against government objectives	The Environment Objective	TAG Unit 3.3	

3 References

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Department for Transport (April, 2009), **Summary of Responses to the Consultation on Delivering a Sustainable Transport System: Planning for 2014 and Beyond**

4 Document Provenance

This Transport Analysis Guidance (TAG) Unit is based on Chapter 3 of **Guidance on the Methodology for Multi-Modal Studies Volume 1** (DETR, 2000).

Revised (September, 2009) to reflect the Government's goals for transport.

Technical queries and comments on this TAG Unit should be referred to:

Integrated Transport Economics and Appraisal (ITEA) Division
Department for Transport
Zone 3/08 Great Minster House
76 Marsham Street
London
SW1P 4DR
itea@dft.gsi.gov.uk
Tel 020 7944 6176
Fax 020 7944 2198