

The Journey Ambience Sub-Objective

TAG Unit 3.3.13

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1 The Journey Ambience Sub-objective

1.1 Introduction

1.1.1 Travellers don't normally travel for its own sake.¹ Travel is a derived demand that arises from people's desire to engage in productive or non-productive activities. Therefore a high quality journey, when experienced, is often (but not always) taken for granted. However a poor journey quality, when experienced, can be easily recognised. Journey quality can be affected, positively or negatively, by travellers themselves and by network providers and operators.

Influences on journey quality

1.1.2 Arguably the most effective way to improve journey quality is to reduce travellers' journey times and/or the variability of these journey times by, for example, improving the transport infrastructure. However these journey time benefits, along with others, such as safety improvements, are taken into account under the Transport Economic Efficiency, Reliability and (see *The Economy Objective* (TAG Unit 3.5)) Accidents sub-objectives (see *The Safety Objective* (TAG Unit 3.4)) and should not be assessed under this sub-objective.

1.1.3 Travellers can affect journey quality in a number of ways. The most significant influences that they can exert directly are their choices of transport mode and vehicle type or class of travel. These choices may affect ride quality, the environmental quality that they experience (noise and air quality levels, whether they stay warm and dry), interior decor and upholstery of the vehicle, the quality of the seats (as distinct from their upholstery), whether facilities such as tables, lights, drinks holders and air conditioning are provided, the quality of the music system and other features. However travellers' influence on the social environment within a vehicle also affects journey quality. For example, prolonged or intermittent distractions such as a crying baby, noisy children or from other travellers can detract from journey quality. Similarly, for drivers and passengers, motorcyclists and cyclists, journey quality can be affected by the mechanical condition and cleanliness of the vehicle and driving style. For public transport the same factors may also apply. However travellers usually have much less influence over the social environment and the cleanliness of the vehicle. It is not possible to say what characteristics about other passengers annoy travellers. However they may include whether they are drunk, talking loudly and smoking. For travellers using private motorised vehicles, journey quality may also vary between that experienced by the driver and that experienced by passengers. These factors are not considered under this sub-objective.

1.2 Methodology for Plans

1.2.1 This methodology focuses on measures under the control of network providers and operators that improve en route journey quality or journey ambience. These measures are an important part of the Government's commitment to:

- deliver better public transport services, through 'Quality Partnerships' in relation to buses and the creation of the Strategic Rail Authority; and
- improve the management of the trunk and local road networks.

¹ Some forms of tourism, such as sightseeing tours, provide exceptions to this general rule.

1.2.2 The measures can affect three journey ambience factors:

- traveller care;
- travellers' views; and
- traveller stress.

1.2.3 The methodology builds and expands upon techniques:

- for assessing impacts on travellers contained in DMRB 11.3.9;
- developed by London Transport; and
- contained in the Institute of Highways and Transportation publication 'Cycle Friendly Infrastructure'.

1.2.4 In assessing these journey ambience factors, the analyst should avoid double counting impacts that are assessed under other sub-objectives. For example, measures to improve journey quality at rail and bus stations and stops should be assessed using the Passenger Interchange sub-objective.

Traveller care

1.2.5 For road users, journey ambience can be affected by whether facilities and information are provided along a route and by their spacing and quality. For public transport users, the cleanliness and general environment within the vehicle are also important journey ambience factors. Taken together, measures to improve these four factors are analogous to what private firms sometimes describe as 'customer care'.

1.2.6 For road users, facilities that improve en-route journey ambience include lay-bys, roadside toilets and service areas along a route. The quality of a service area will depend on what services are available. These may include: petrol; restaurant; lodgings; toilets, including baby changing facilities and provision for the disabled; and shops. However journey ambience also depends on the condition of the service area, their spacing along a route and whether or not people perceive the service area to be over-crowded. Some of these factors will also affect the quality of lay-bys and roadside toilets.

1.2.7 For cyclists and pedestrians the provision and design of dedicated facilities, such as cycle lanes and crossings, may affect journey quality. An example of poor design is where a cycle path/route is provided along a route with steep gradients.

1.2.8 En-route information provided to road users can be classified into route specific information (e.g. direction signs) and general travel information (such as a warning sign for a sharp bend in the road). The methodology in this section is concerned with changes in the provision and quality of general travel information. Improvements to route-specific information is dealt with under Route Uncertainty, in the Traveller Stress section below.

1.2.9 On public transport, improvements to stations and bus stops should be assessed under the Passenger Interchange sub-objective. However vehicle attributes (other than those that enhance security and safety of travellers and staff) that can affect journey quality can be categorised in four ways:

- cleanliness - internal and external cleanliness and graffiti; the condition of the seats; tables; brightness of internal lighting;
- facilities - types of seats, handles, luggage racks and storage, toilets, buffet/restaurant facilities and level of staff customer service;

- information - audibility, frequency and usefulness of on-board PA announcements; the provision of general travel information and customer magazines; and the condition of advertising posters; and
- environment - extent of overcrowding, ventilation; temperature; noise; overall condition and smoothness of ride.

1.2.10 Using Worksheet 1 an assessment should be made about the impact of the proposed option on each of these sub-factors using a simple three point scale - better, neutral, worse.

Travellers' views

1.2.11 A transport improvement can affect the extent to which travellers can see the surrounding landscape and townscape and have an impact on the attractiveness of the general travelling environment. For example, the re-opening of a rail line may enable more people to see and appreciate notable landscape features. However, the construction of a bypass is likely to reduce the number of travellers that pass through a historic town centre. The extent to which travellers can see the landscape or townscape will vary with the relative level of the route and the surrounding ground, vegetation, buildings and structures. Views can be categorised as providing:

- no view - where the route is in a deep cutting, a tunnel or surrounded by environmental barriers;
- restricted view - where there are frequent cuttings, tunnels or barriers;
- intermittent view - where there are shallow cuttings or barriers; and
- open view - where the view extends over many miles.

1.2.12 Even small improvements to the areas surrounding a route can improve its attractiveness, such as the provision of higher quality crash barriers and street furniture, the planting of roadside/tracksides vegetation, the removal of roadside/tracksides litter or graffiti and improvements to disused rail freight facilities. A high quality view can also help relieve traveller stress (see the section below).

1.2.13 Using Worksheet 1 an assessment should be made about the impact of the proposed option on travellers' views using a simple three point scale - better, neutral, worse

Traveller stress

1.2.14 Traveller stress is the adverse mental and physiological effects experienced by travellers. Three main factors influence traveller stress:

- frustration;
- fear of potential accidents; and
- route uncertainty

1.2.15 Taken together, these can lead to feelings of discomfort, annoyance, frustration or fear culminating in physical and emotional tension that detracts from the quality and safety of a journey. Extreme cases of traveller stress can contribute towards, or be caused by, 'transport rage'. The extent of stress will depend on the travellers driving skill and experience, temperament, knowledge of the route and state of health.

- 1.2.16 **Frustration.** Major influences on frustration include a driver's inability to drive at a speed consistent with his or her own wishes relative to the standard of the road (e.g. congestion), or delays on public transport. However these impacts should be assessed under other sub-objectives.
- 1.2.17 For road users, other influences on frustration include:
- the road layout and geometry;
 - the condition of the road network; and
 - the ability to make good progress along a route;
- 1.2.18 A complex or coherent road layout (e.g. poor junction design or incomplete cycle route) may confuse and frustrate travellers compared with a simple or complete road layout. The effect of geometry on journey quality can be either positive or negative. An extremely bendy road is difficult to drive along and more uncomfortable for travellers. However the inclusion of gentle bends on what would otherwise be straight roads usually makes the experience for the driver more pleasant because he/she is required to concentrate more on driving.
- 1.2.19 The condition of the road network will affect ride quality for all travellers, although it will be of more particular concern to cyclists. The condition of a road includes its:
- perceived smoothness, in terms of whether it is deformed, rutted and holed or provides a seamless pavement;
 - performance characteristics, in terms of its in-vehicle noise, drainage, skid resistance, the amount of spray that it throws up and whether drivers are dazzled by on-coming vehicles at night.
- 1.2.20 The ability to make good progress along a route depends on factors such as the presence or absence of traffic management measures, such as chicanes or speed bumps and the availability of overtaking opportunities. The absence of the latter means that when overtaking stationary vehicles, the driver is continually having to pull out from behind these vehicles. These factors may or may not increase journey times, but are likely to affect the travelling experience.
- 1.2.21 Some public transport users (e.g. the disabled and mothers with young children) may experience frustration in accessing and egressing public transport.
- 1.2.22 **Fear of accidents.** Fear of accidents is more likely to be associated with road users. The main factors leading to fear of accidents are the presence of other vehicles, inadequate sight distances and the possibility of pedestrians stepping into the road. Other factors include: whether or not the flow of traffic in each direction is physically separated; inadequate lighting; the width of the road/carriageway/lane; the presence of roadworks; the absence of lane markings, cats eyes, safety barriers and hard shoulders. Fear is highest when speeds, flow and the HGV content is high. All these factors become more important in adverse weather conditions. A road scheme may increase vehicle flow and speeds, but will also be built to a superior design standard, offering a higher quality road surface and lighting.
- 1.2.23 **Route uncertainty.** Travellers' uncertainty about their route can be influenced by the extent to which they have planned their journey and the quality of route information, whether provided to users before they begin their journey, or en route. Improved provision and legibility of en-route general travel information is included in the Customer Care section above and is not discussed here.
- 1.2.24 At any one time a proportion of road users are lost. Improved route signs should reduce this proportion and improve journey quality. This benefit should be assessed under this sub-objective. However the beneficial impacts of this

measure on journey times, vehicle operating costs and safety should be considered under the Journey Time and Vehicle Operating Costs and Accidents sub-objectives.

1.2.25 Lack of public transport information, and peoples' unfamiliarity with that information, are two of the major impediments to travellers using public transport. This methodology is specifically concerned with assessing improvements in the provision and legibility of route information, either pre-trip and/or en-route. Such improvements might include:

- timetables and network maps that are: easier to use; more accessible (e.g. available in public places, or on the Internet); and provide more detailed route information;
- better provision of in-vehicle route signs.

1.2.26 Improvements in the provision and legibility of route and general travel information at stations (particularly where these are large) and bus stops should be assessed under the Transport Interchange sub-objective (see *The Integration Objective* (TAG Unit 3.7)). As noted above improvements in the provision of en-route general travel information is discussed in the Customer Care section above.

1.2.27 Using Worksheet 1 an assessment should be made about the impact of the proposed option on each of these sub-factors using a simple three point scale - better, neutral, worse.

Overall impact scoring

1.2.28 To arrive at an overall impact score for quality of a journey use the following guidelines:

- the overall assessment is likely to be neutral if the assessment is neutral for all or most of the sub-factors, or improvements on some sub-factors are generally balanced by deterioration on others;
- if the change in impact across the sub-factors is, on balance, for the better, the assessment is likely to be beneficial, and, conversely, it is likely to be adverse if there is an overall change for the worse;
- the overall assessment is likely to be slight (beneficial or adverse) where the numbers of travellers affected is low (less than 500 a day, say);
- the overall assessment is likely to be large (beneficial or adverse) where the numbers of travellers affected is high (more than 10,000, say);
- the overall assessment is likely to be moderate (beneficial or adverse) in all other cases.

Qualitative comment

1.2.29 The qualitative box on the AST should be used to provide any comments of particular significance about the appraisal of plans or strategies against this sub-objective.

1.3 Methodology for strategies

- 1.3.1 The methodology, set out above for plans, should be applied to strategies on a corridor basis, rather than on a locational basis. It is likely that more general conclusions will be reached. The appraisal will also need to reflect the extent to which there is clear evidence that journey quality has changed.

2 Application of TAG to Highway Schemes

This section provides advice on the links between TAG's treatment of the journey ambience sub-objective and the advice given in Volume 11 of the *Design Manual for Roads and Bridges* (DMRB), which deals with the environmental assessment of highway projects. An explanation of the correspondence between the advice set out in TAG and DMRB is given in *Applying the multi-modal new approach to appraisal to highway schemes* (TAG Unit 2.6).

2.1 Methods and Worksheets

- 2.1.1 The TAG approach develops further the method in DMRB 11.3.9 (under Vehicle Travellers) by including, in addition to Traveller View from the Road (Rail etc) and Traveller Stress, the factor of Traveller Care. Work sheet 1 shows the information to be used in the appraisal.

2.2 Data Transformation from DMRB to TAG

Data requirements	Modify DMRB Output?	Data Sources
<i>Worksheet</i>		
Traveller Care	New	New for TAG
Traveller's Views	Yes	DMRB 11.3.9.2 for view from road, add other road-based modes of transport
Traveller Stress	Yes	DMRB 11.3.9.3 for driver stress, add other road-based transport modes
<i>AST</i>		
Any Comment of particular significance	Yes	Summarise worksheet
Impact Score	Yes	Transfer from worksheet

- 2.2.1 For Traveller's View and Traveller Stress, added to the DMRB assessment should be an estimate of effects on other road-based transport users, particularly public transport users. The DMRB criteria for Driver Stress can be used to score the factor of Traveller Stress.
- 2.2.2 Traveller Care is a new concept for TAG and information will need to be collected for the four sub-factors: cleanliness, facilities, information and environment.

2.3 DMRB Stages 1 and 2/ TAG

- 2.3.1 Traveller 'view from the road' and 'driver stress' from DMRB Stages 1 and 2 can be used as a broad brush estimate for journey ambience in TAG. Information on 'traveller care' can be added if it is known at the early stages of assessment, although this is unlikely.

Worksheet 1 Environment: Journey Ambience

Factor	Sub-factor	Better	Neutral	Worse
Traveller Care	Cleanliness			
	Facilities			
	Information			
	Environment			
Travellers' Views	-			
Traveller Stress	Frustration			
	Fear of potential accidents			
	Route uncertainty			

Reference Source(s): _____

Summary assessment score: _____

Qualitative comments: _____

3 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 Unit number:
Assessing Transport Schemes against the Economy Objective	<i>The Economy Objective</i>	TAG Unit 3.5
Assessing Transport Schemes against the Safety Objective	<i>The Safety Objective</i>	TAG Unit 3.4
Assessing Transport Schemes against the Integration Objective	<i>The Integration Objective</i>	TAG Unit 3.7
Appraisal Summary Table	<i>Transport Appraisal and the New Green Book</i> <i>The Appraisal Process</i>	TAG Unit 2.7 TAG Unit 2.5
The correspondence between the advice set out in TAG and DMRB	<i>Applying the multi-modal new approach to appraisal to highway schemes</i>	TAG Unit 2.6

4 References

Highways Agency *Design Manual for Roads and Bridges (DMRB)*

5 Document Provenance

This Transport Analysis Guidance (TAG) Unit is based on Chapter 4 Section 13 of *Guidance on the Methodology for Multi-Modal Studies* (DETR, 2000).

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

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