

11. Outcomes, Targets, Monitoring and Review

INTRODUCTION

- 11.1 The implementation of the Plan over the coming years will start to bring significant benefits to users of the BMA's transport system alongside a wide range of other benefits: to the environment; to the economy; to road safety; and to the quality of life in both urban and rural areas. In tandem with BMAP it will also support wider policy initiatives for the sustainable economic and social development of the BMA. This Chapter presents a description of the expected outcomes of the Plan and outlines the process by which the Plan's implementation will be monitored and reviewed.

HEADLINE OUTCOMES

- 11.2 A number of key outcomes for the 2015 Plan are listed in Table 11.1. These outcomes are closely linked to the BMTP objectives, as outlined in Chapter 2. The table compares the projected performance of the Plan in 2015³⁸ against a benchmark of the situation in 2001³⁹. For ease of comparison the performance of the 2015 BMTP is expressed as a percentage change from the benchmark.

Performance against GOMMMS objectives

- 11.3 An Appraisal Summary Table (AST)⁴⁰ is provided in Annex C which records the benefits and disbenefits of the Plan (relative to a 2015 Reference Case that assumes that the Plan's proposals are not implemented⁴¹) against the GOMMMS overarching objectives.

Supporting Analyses

- 11.4 In addition, supporting analyses have been undertaken providing assessments of: distribution and equity impacts including the key requirement to support wider New Targeting Social Need (TSN) initiatives; affordability and financial sustainability; and practicality and public acceptability. These are presented in Annex D.

³⁸ The projected impact of the Plan on travel demands and transport network flows has been estimated using a computer-based transport model of the BMA. The model enables estimates of the impact of improvements to the transport system on travel patterns and the level of use of different types of transport mode to be made. It is also able to incorporate assumptions about the changes in the level and location of population, land use and car ownership that are expected over the coming years.

³⁹ 2001 has been employed to represent the current situation – as part of the BMTP process which commenced in 2001 a full set of data was assembled for travel demands and network performance in 2001. Subsequent monitoring of the Plan is expected to enable this benchmark to be updated.

⁴⁰ An Appraisal Summary Table (AST) is the GOMMMS-recommended means of reporting the extent to which a transport plan (or strategy) achieves the government's overarching objectives for transport and is a required output of the multi-modal approach to Plan development.

⁴¹ The Reference Case is the without-Plan scenario and is employed as a comparator against which to assess estimated BMTP impacts. It is different to the Reference Case employed in the RTS. Certain of the RTS proposals are already being implemented and are therefore included in the BMTP Reference Case – for example the investment in new rolling stock, retention of the rail network, bus replacement programme and road maintenance programme.

Table 11.1 – Key Outcome Indicators

Objective	Description	BMTP 2015 % change from 2001 Current Situation benchmark
Environment	Nitrogen Oxides emitted by road traffic*	-52%
	Carbon Dioxide emitted by road traffic*	20%
Safety	Number of personal injury accidents per annum*	-17%
Economy	Average weekday morning peak period speeds on the BMA's strategic road network	-1%
	Average weekday morning peak period speeds on the entire BMA road network*	-7%
Accessibility	Rail – average weekday morning peak period services in terms of train kilometres operated*	69%
	Rail – average weekday morning peak period services in terms of patronage*	67%
	Citybus – average weekday morning peak period services in terms of bus kilometres*	72%
	Citybus – average weekday morning peak period services in terms of patronage	44%
	Bus and rapid transit – average weekday morning peak period services in terms of vehicle kilometres operated*	14%
	Bus and rapid transit – average weekday morning peak period services in terms of patronage	28%
	Rural Demand Responsive Bus Services in terms of vehicle journeys undertaken*	100%

* indicates that this indicator is equivalent to an RTS outcome indicator

11.5 The following sub-sections summarise the performance of the Plan against each of the overarching objectives by comparing the 2015 Plan against the existing situation.

◆ Environment

- Nitrogen Oxides – a large decrease is forecast between 2001 and 2015 due to the very significant improvement in fuel technology, engine efficiency and exhaust controls: these improvements more than offset any increases due to traffic growth.
- Carbon Dioxide – emissions are forecast to increase relative to 2001 due to the growth in traffic between 2001 and 2015 outweighing improvements to fuel and engine efficiency. However, relative to a 2015 Reference Case the Plan is forecast to result in a slight decrease in the level of emissions.

◆ Safety

- The Plan is forecast to significantly reduce the number of personal injury accidents through the widespread implementation of traffic calming and Collision Remedial measures. These are expected to reduce the number and severity of accidents by reducing traffic speeds and bringing about changes in attitudes to driving. In addition, traffic calming measures help to divert traffic

onto more suitable strategic routes, further reducing the likelihood of accidents. Similar schemes in the UK have led to average decreases in speed of 9 mph and reductions in accident frequency of 60%⁴². These figures have been calculated for accident savings attributable to the BMTP proposals and do not take account of other savings expected to be delivered through NI-wide safety initiatives.

◆ Economy

- Speeds on the BMA's strategic highway network are forecast to reduce slightly comparing the 2015 Plan against the 2001 benchmark. This represents the combined impact of traffic growth and the effect of traffic management measures on the non-strategic network that result in diversion of traffic to the strategic network. Speeds on the strategic network are forecast to increase slightly, comparing the 2015 Plan with the 2015 Reference Case;
- Comparing speeds on the entire BMA highway network shows that speeds in the 2015 Plan are also lower than those in the 2001 benchmark. This represents the net effect of traffic calming measures, which slow traffic down, and the effect of the reallocation of roadspace to public transport (in the form of bus priority, walking and cycling).

◆ Accessibility

- Rail services – the net effect of the Plan proposals is to significantly increase train kilometres on the Belfast commuter rail network. This represents the effect of the proposed frequency enhancements.
- Rail passengers – the Plan is forecast to very significantly increase the number of rail passengers comparing the 2015 Plan with 2001. A significant proportion of this increase is due to the impact of the introduction of new trains.
- Citybus, bus and rapid transit services – the combined effect of the introduction of QBCs with enhanced service frequencies, park-and-ride services and the proposed commencement of the rapid transit network would significantly increase services relative to both the current situation and the 2015 Reference case.
- Citybus, bus and rapid transit patronage – the combined effect of the introduction of QBCs, park-and-ride and the proposed commencement of the rapid transit network would increase patronage relative to existing levels.
- Rural demand responsive bus services in the BMA would experience a large increase in bus kilometres provided.

⁴² TRL Project Report 215 – Review of Traffic Calming Schemes in 20 mph zones, 1996

TARGETS

- 11.6 To monitor the implementation of the Plan the outcomes listed in Table 11.1 have been converted into targets that, when implemented, the Plan is expected to achieve. These targets have been augmented by additional targets drawn from wider strategy documents.
- 11.7 For the targets to be of any value in measuring Plan performance reliable data must be collected. In certain instances information is already collected as part of various on-going data collection programmes. In other cases new regular data collection programmes will need to be initiated.

REVIEW

- 11.8 As with any Plan there will be a need to undertake periodic reviews. Changes in the economic, social, legal and political environment may necessitate modifications to Plan contents and priorities. The success of the implemented initiatives will dictate the extent of their future roll-out. The monitoring of Plan delivery and outcomes may suggest that modifications are required to maximise its effectiveness in delivering a modern integrated transport system.
- 11.9 It is envisaged that the Plan is reviewed as a minimum at five-yearly intervals, with intermediate reviews of individual elements of the Plan undertaken as required.

Table 11.2 – Targets

Objective	Indicator	Target	Monitoring
Economy – improve the efficiency of the transport system	1. Morning peak traffic speeds on the BMA's strategic road network	No more than 1% slower than in 2001	Rolling programme of travel time surveys on selected routes
	2. Morning peak bus speeds in the BMA's road network on main radial routes	15% increase in bus speeds compared to 2001	Rolling programme of bus travel time surveys on main radial bus routes
Sustainability – reduction in car dependency on increase in use of non-car modes	3. Car mode share of motorised journeys crossing a Belfast City Centre cordon	Reduce to 54% by 2015 compared to 60% in 2001	Annual cordon survey on Belfast City Centre and Inner City Cordons
Sustainability – increase in public transport use	4. Number of public transport trips made by bus, rail and rapid transit in the BMA	Morning peak % change from 2001 Bus +28% Rail +67%	Translink ticket sales information
Sustainability – increase in walking and cycling	5. Number of walking and cycling trips crossing a Belfast City Centre cordon and the Inner City Cordon	Walking +20% for journeys less than 2 miles (by 2012) Cycling +300% from 2000 base ⁴³	Annual cordon survey on Belfast City Centre and Inner City cordons
Safety	6. Number of personal injury accidents on roads in the BMA	Contribution to the reduction in the number of personal injury accidents by one third from 2001 by 2012 ⁴⁴	Accident statistics collected by PSNI and monitored by Roads Service
Environment – reduction in emissions from traffic	7. Emissions of Nitrogen Oxides from road traffic	Targets to be defined as part of Local Air Quality Management Area (LAQMA) action plans	Monitoring of emissions at selected sites is part of LAQMA's
	8. Emissions of particulates from road traffic		
Accessibility	9. Access to the public transport system, % of households in the BMA within 10 minutes walk of a bus service	Increase relative to 2001	Translink GIS of bus service provision

⁴³ NI Walking Strategy and Cycling Strategy targets

⁴⁴ NI Road Safety Strategy 2002-2012, DoE, 2002