Implementation of Directive 2001/42/EC for English transport plans

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Abstract

English Local Highways Authorities have a statutory duty to prepare a 5-year local transport plan (LTP) according to the Transport Act 2000. The first full LTPs were submitted to Government 31 July 2000. Prior to the adoption of European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, LTPs required an assessment of the extent to which they performed against the UK Government's five overarching objectives for transport, which included environment, accessibility, safety, economy and integration. Environmental appraisal was thus one of a five-strand appraisal requirement for the first English LTPs. The next LTPs are due 31 July 2005, and will require a strategic environmental assessment (SEA) according to the requirements of Directive 2001/42/EC.

This paper explores the practice of environmental appraisal for English LTPs, and compares aspects of existing practice with certain requirements of the forthcoming Directive. The main focus is on integration into decision-making, environmental monitoring, and report quality. Aspects that are examined include the extent to which the environmental appraisal influenced LTP preparation, the extent and nature of environmental monitoring undertaken, and the extent to which environmental information is provided in LTP documentation. The paper also examines local transport planning authority views on how some of the challenges of implementing Directive 2001/42/EC can be met.

Introduction to research and structure of paper

The research presented in this paper arose from the adoption of European Directive 2001/42/EC and the perceived challenges that would be involved in implementing some of the requirements. A summary of the stages in the SEA process as specified by the Directive is provided in Box 1. In particular, it was perceived that the requirements related to taking the environmental (SEA) report into account during plan preparation (Article 8), monitoring significant environmental effects of plan implementation (Article 10), and ensuring that the quality of environmental reports was such that they met the requirements of the Directive (Article 12.2), would present a challenge.

Box 1 Stages of the SEA process as required by Directive 2001/42/EC

(Stages are not in sequential order. Articles refer to Directive 2001/42/EC)

1. Scope (Article 3)
2. Prepare environmental report (Article 5)
3. Consult (Articles 6 & 7)
4. Take environmental report and consultations into account during plan/ programme preparation (Article 8)
5. Inform consultees whether plan/ programme was approved or rejected, informing them of how environmental considerations and their views were taken into account in the decision and of proposed monitoring measures (Article 9)
6. Monitor significant environmental effects (Article 10)
7. Ensure quality of environmental reports (Article 12.2)

Source: OJ L 197/34, 21.7.2001

The focus of this research has been partly methodological; to identify appropriate techniques and methods required for undertaking the SEA activities, and partly that of practical implementation; in order to investigate how the requirements could best be implemented for a specific plan or programme.

The plans that were selected for this research were English regional and local transport plans, for which there already existed certain appraisal requirements prior to the adoption of Directive 2001/42/EC.

This paper presents findings from one aspect of this research; namely the research undertaken for English local transport plans (LTPs).

Nitz and Brown (2001) argue that in order for SEA to provide useful information about the environmental consequences of decisions, it is essential to understand how policy-making processes work. This paper therefore provides a brief outline of the UK approach to transport planning and the institutional framework for English transport plans. Within this context, some of the key findings from the research undertaken for English LTPs are presented. This includes the extent to which the environmental appraisal influenced plan preparation, the extent and nature of environmental monitoring, and the extent to which environmental information is provided in LTP documentation. Finally, the paper examines local transport planning authority views on how some of the challenges of implementing Directive 2001/42/EC can be met.

From 'predict and provide' to integrated transport planning in the UK

Since the Second World War, the UK along with many western countries adopted what has been termed a 'predict and provide' approach to transport planning. This was characterised by a strong emphasis on road-based solutions to transport problems and consisted essentially of predicting increases in traffic levels and building new roads to accommodate forecasted traffic growth. However, the environmental impacts resulting from increased levels of traffic combined with increasing international concern about environmental degradation, led to the 'predict and provide' approach increasingly being regarded as unsustainable.

The shift away from the 'predict and provide' approach in the UK can be described in terms of a number of events during the 1990s (Box 2). In 1989, traffic projections were published for the UK predicting a doubling or a tripling of traffic over the next 30 years. This promoted what has been called the "biggest road programme since the Romans" (Owens and Cowell 2002). In 1994, the Royal Commission on Environmental Pollution (RCEP) published *Transport and the Environment*, a review of the environmental effects of transport (HMSO 1994a). This report highlighted the environmental problems associated with rapid growth in road and air travel, and investigated the relationship between transport and land-use planning. The RCEP report recommended radical changes to the road-building policy in the UK, and when the Standing Advisory Committee on Trunk Roads Assessment (SACTRA) produced their report in the same year (HMSO 1994b), it was finally confirmed that new roads could in fact generate traffic. During the following years, the newly established UK Round Table on Sustainable Development published several hard-hitting reports about among other issues, transport. Around the same time, and amid increasing international concern about climate change, transport was officially acknowledged as the fastest growing contributor to greenhouse gas emissions in the UK (Owens and Cowell 2002).

Box 2 Major events contributing to the shift from 'predict & provide' to an integrated approach to transport planning in the UK

1989	Predictions for a doubling or tripling of traffic
1989	'The biggest road programme since the Romans'
1994	RCEP 18th report recommends radical changes to road building policy
1994	SACTRA report confirms that road building can potentially generate traffic
1995	UK Round Table on Sustainable Development is established, producing several hard hitting reports on transport during 1996 and 1997
1997	Integrated transport becomes politicised during the general election
1998	New Labour government publishes transport White Paper outlining a strategy for integrated transport

By the mid-1990s there was a widespread view in the UK that transport policy must be 'integrated' and 'provide choice,' i.e. provide alternatives to the personal car. The general election in 1997 contributed to politicising the issue of integrated transport, with the opposition parties promising the electorate an integrated approach transport planning if they were elected (Owens and Cowell 2002). When the New Labour government came into office, they published the White Paper *A New Deal for Transport: Better for Everyone* (DETR 1998a), which outlined an integrated transport strategy for the UK.

The transport White Paper set the policy framework for integrated transport planning in England [1], and this can be summarised as:

- Integration within and between different types of transport, maximising the potential of each mode and enabling people to move more easily move between them.
- Integration with the natural and built environment, so that personal travel choice contributes towards a better environment.
- Integration with land-use planning at national, regional and local level, to reduce the need to travel and promote more sustainable travel choices.
- Integration with other policies such as education, health and wealth creation, so that transport helps to make a fairer, more inclusive society.

The UK Government's five overarching objectives for integrated transport, and a new appraisal methodology

Along with the transport White Paper, the government produced a strategic roads review of the national roads programme *A New Deal for Trunk Roads in England* (DETR 1998b). The roads review was guided by five criteria, which represent the Government's overarching objectives for integrated transport:

1. **Integration** – to ensure that all decisions are taken in the context of an integrated transport policy;
2. **Safety** - to improve road safety for all road users;
3. **Economy** – to support sustainable economic activity in appropriate locations and ensure good value for money;
4. **Environment** – to protect the built and natural environment; and
5. **Accessibility** – to improve access to facilities and services, especially for those without a car, and to reduce community severance (DETR 1998b).

One of the results of the road review was a dramatic reduction in the number of road-building schemes, and the national roads program which had previously consisted of 147 schemes

[1] Separate papers were published for Scotland (*Travel Choices for Scotland*, Cm 4010, 1998), Wales (*Transporting Wales into the Future*, Welsh Office 1998) and Northern Ireland (*A Transport Statement for Northern Ireland*, 1998).

was replaced by a Targeted Programme of Improvements of 37 road schemes to be taken forward over a seven year period (DETR 1998b).

In terms of environmental assessment practice in the UK, the *New Deal for Trunk Roads* was of particular importance as it gave rise to the need for a new appraisal methodology. This resulted in the *New Approach to Appraisal* (NATA), which was designed to assess transport proposals in terms of how well they contributed towards meeting the Government's five objectives for transport, and for assessing their value for money. NATA was designed to be suitable for appraising a wide range of road investment schemes in addition to trunk road proposals, including safety schemes, local management schemes, environmental schemes, and network control schemes (DETR 1998c).

In order to relate the overarching objectives to the impacts of specific transport proposals, NATA defined subsidiary objectives for each of the five overarching objectives. The sub-objectives for the environmental protection objective were:

- To reduce the nuisance caused by traffic related **noise** and **vibration**;
- To reduce the effects of road traffic on **local air quality**, and to reduce the emission of **greenhouse gases** from road traffic;
- To protect the character of the **landscape**;
- To protect **biodiversity** and **earth heritage** interests where they interact with roads;
- To protect the heritage of **historic resources** where they interact with roads; and
- To protect the **water environment** where it interacts with roads (DETR 1998c)

A key element to NATA was that the results of the appraisal were summarised in an Appraisal Summary Table (AST), which represented a one-page tabular summary of the appraisal results for all five overarching objectives. The AST was introduced to make the appraisal process more transparent, and to provide decision-makers with a clear and consistent basis on which to decide which road schemes should proceed (DETR1998b).

The NATA AST was novel in that it could accommodate quantitative data and qualitative description alongside monetary values. It was designed so that equal weights were assigned to environmental, social and economic impacts, thus avoiding making value judgements about the relative value of the objectives (DETR 1998b).

NATA was revised and superseded in 2000 by the *Guidance on the Methodology for Multi Modal Studies* (GOMMMS), which adapted the methodology for use at a more strategic level than individual transport schemes (DETR 2000a). With the GOMMMS appraisal a revised AST was introduced, with minor amendments to the NATA sub-objectives. This included the addition of two sub-objectives;

- To improve the **physical fitness** of travellers and

- To improve **journey ambience**.

The most notable alteration was that the GOMMMS AST omitted specific reference to cost-benefit analysis data (Tomlinson 2001).

The methodology for assessing the environmental subsidiary objectives was set out in the *Design Manual for Roads and Bridges* (DMRB) Volume 11 (DoE 1993). The DMRB Volume 11 advocates a quantitative approach to assessing impacts related to noise, vibration, local air quality and carbon dioxide emissions, and these assessments generally include a comparison of impacts 'with and without' the proposed transport scheme. For example, the assessment of noise impacts involves establishing the net number of properties that would experience changes greater than or less than 3bB(A) between the 'do minimum' and the 'proposed' option (DoE 1993).

The remaining NATA/GOMMMS environmental sub-objectives are subject to a more qualitative assessment (Table 1). This generally involves a description of the environmental characteristics or baseline according to a list of specified features in DMRB Volume 11, and a qualitative assessment of impacts against a list of indicators.

Table 1: Level of information recommended for the environmental sub-objectives of NATA/GOMMMS (adapted from DETR 2000a)

Environmental sub-objective	Quantitative approach advised	Qualitative approach advised
Noise & vibration	■	
Local air quality	■	
Greenhouse gases	■	
Landscape Biodiversity		■
Heritage of historic resources		■
Water environment		■
Physical fitness		■
Journey ambience		■

Delivering integrated transport: national, regional and local transport plans

Whilst the framework for an integrated transport policy was provided by the transport White Paper, the delivery of the new approach to transport planning was initiated through the *Transport Act 2000* (HMSO 2000) which provided the statutory basis for the measures outlined in the White Paper, and *Transport 2010: The 10 Year Plan* (DETR 2000b) which provided the financial framework for implementation. The key mechanisms that were

introduced to deliver integrated road transport included multi-modal studies, regional transport strategies and local transport plans.

Multi-modal studies (MMSs) were designed to address key problems on the strategic trunk road network that were not addressed in the Targeted Programme of Improvements from the roads review. Rather than focussing on the contribution of individual transport modes to solving a transport problem, MMSs were meant to take a comprehensive view and consider the potential contribution of all transport modes in the area or corridor concerned (DETR 2000b). They provide recommendations for regional transport strategies, and in some cases also for local transport plans.

Regional transport strategies (RTSs) promote the integration of transport and land-use planning at a regional level, and aim to reduce the need to travel and the length and number of motorised journeys, encourage alternative means of travel which have less environmental impact, and reduce reliance on the private car (DETR 2002). RTSs set the regional transport priorities and provide the framework for local transport plans.

Local transport plans (LTPs), which are the main focus of this paper, were introduced in order to deliver integrated transport solutions at the local authority level. English Local Highways Authorities[2] have a statutory duty to prepare an LTP according to the Transport Act 2000 (HMSO 2000). Preliminary LTPs were prepared by July 1999, and the first full LTPs were submitted 31 July 2000. Highways Authorities are required to submit their next LTPs by 31 July 2005.

LTPs are developed for a five-year period, and provide a programme of schemes and policy measures. They also set local targets and performance indicators for meeting the government's five overarching objectives for transport. This can include targets for issues such as e.g. local air quality, the number of road casualties, public transport patronage, or the number of journeys walked and cycled.

Monitoring arrangements must be established for assessing whether the plan is delivering its outputs, and progress towards objectives and performance indicators must be reported annually through an annual progress report (APR). The APRs may also be used to submit new major scheme proposals or major schemes that were under development at the time of the first LTP submission (DfT 2003).

LTPs are the main mechanisms for implementing national and regional transport priorities, and many of the 'softer' transport demand management measures are implemented at the local authority level. As an example, this might include measures to restrict car parking in

[2] London Boroughs have a different transport planning system and are excluded from this requirement.

areas that are serviced by good public transport links, improve public transport interchanges, or provide safer routes for pedestrians and cyclists.

The LTP document is a formal bid for capital resources which is submitted by the Local Highways Authorities to the Department of Transport (DfT). The capital funding to deliver the transport strategies outlined in LTPs is initially allocated by the DfT on the basis of the quality of the LTP, and the extent to which the plan meets the government's objectives for transport. The quality of the LTP is assessed by the DfT according to the criteria in Annex D of the *Guidance on Full Local Transport Plans* (DETR 2000c). Continued levels of funding are subsequently determined annually, based on the delivery of outputs of the transport plan as reported in the APR.

Environmental appraisal practice for English local transport plans and comparison to the requirements of Directive 2001/42/EC

Within the context of UK transport planning and appraisal methodology outlined in the previous section, this part of the paper presents some of the key findings from the research undertaken for English LTPs.

The first full LTPs that were submitted in 31 July 2000 had to demonstrate that they were consistent with the Government's overarching objectives for transport, and as such they were required an appraisal according to a simplified version of NATA/ GOMMMS. Advice for local highways authorities on how to apply the simplified methodology was provided by the *Guidance on Full Local Transport plans* Annex E (DETR 2000c) and an accompanying working note[3].

The next LTPs which are due July 2005 will require an SEA according to the requirements of Directive 2001/42/EC. The main aims of this research were to investigate whether there are aspects of the appraisals that were undertaken for the first LTPs that could be seen to already comply with the requirements of the Directive. Conversely, to identify any aspects that had not previously been undertaken for the LTPs but which would have to be introduced in order to meet the new requirements.

The remaining sections of this paper presents some of the findings to date, structured in terms of the three main research topics which include the extent to which the environmental appraisal influenced the first LTPs, whether any environmental monitoring has been undertaken and what this has consisted of, and the extent to which environmental information was included in LTP documentation. For each of the topics, practitioner opinions and suggestions for how the requirements of the Directive can best be met for the next LTPs are discussed.

[3] *Appraisal of Local Transport Plans: Advice on Simplified Procedures* (no longer available)

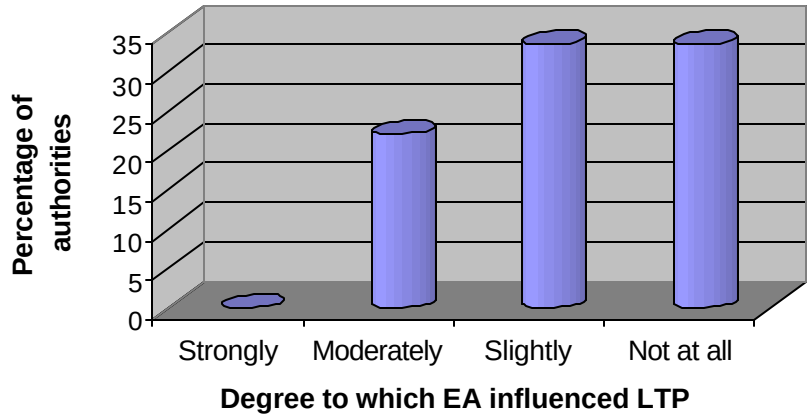
There have been three aspects to the empirical research undertaken for the LTPs[4]; firstly a questionnaire was sent to all 85 local highways authorities in England (of which 45 were returned, equalling a 53 percent response rate); secondly the documentation for 17 LTPs was reviewed in terms of topics and coverage of contents; and finally interviews were undertaken with LTP practitioners in each of the eight English regions, representing a total of 16 interviews.

Influence of environmental appraisal on English LTPs

Directive 2001/42/EC states that the results of the environmental assessment and the opinions expressed during consultation must be taken into account in the final plan or programme proposal prior to its submission (Article 8). When the decision is made on whether to adopt or reject the plan or programme in question, the consultees must be informed about the decision and how their views and environmental considerations were taken into account and about any proposed monitoring measures (Article 9).

The extent to which the environmental appraisal and consultations influenced the existing LTPs was investigated in the questionnaires. Practitioners were asked the extent to which they believed the appraisal and the views expressed during consultations had influenced the LTP, and the nature of this influence (e.g. positive, negative, neutral). The questionnaire response was further investigated during the interviews. Finally, the contents review of the LTP reports established the extent to which there had been any documentation of how the environmental appraisal and consultations had influenced the plan.

Figure 1
Degree of influence of the environmetnal appraisal on the LTP, as rated by local highways authorities (N=45)



[4] This has also been undertaken for the English regional transport strategies.

One third of the questionnaire respondents (33 percent) rated the degree of influence of the environmental appraisal on the LTP as either slight or moderate, and 22 percent of respondents believed the environmental appraisal to have had moderately influenced the LTP (Figure 1). None of the authorities expressed that the environmental appraisal had strongly influenced the LTP.

The questionnaire respondents were also asked to rate the nature of the influence that the environmental had on the LTP. Only 29 percent of the respondents answered that the EA had influenced the LTP positively, and just over half (58 percent) rated the influence as neutral. None of the respondents felt that the EA had been a negative influence on the LTP.

In the LTP documentation, there is generally very little mention of how the environmental appraisal was integrated or taken into account in the decision-making processes of the LTPs. The few examples that were identified included a reference to the fact that noise monitoring and assessment data would be used to monitor targets and influence decision making in one of the LTPs. Another authority had used the NATA criteria to identify the preferred LTP strategy, and mentioned that the monitoring results would be used to identify the need to any necessary changes to the LTP.

Whereas the documentation of how environmental considerations have been taken into account is generally lacking, there is considerably more mention of how consultation influenced the LTP. Of the 17 LTPs reviewed, all contained some reference to consultation or public participation[5]. Ten of the LTPs contained some reference to how the views expressed during consultation and participation exercises had influenced the LTP, ranging from a general reference to a summary of key findings and how they had influenced the LTP.

Suggestions for how to increase the influence of the environmental appraisal

In order to investigate ways in which the influence of the environmental appraisal on the LTP could be increased, questionnaire respondents were requested to select the four factors (from a list of eleven) that they believed were the most important in limiting the degree of influence that the environmental appraisal had on the existing LTPs. Around half the respondents selected the same four factors:

1. Lack of resources to undertake the environmental appraisal (60 percent)

2. The perception of environmental appraisal as an activity to fulfil a requirement, rather than as a process to make the LTP more environmentally sound (51 percent)

3. Lack of mechanism to link the environmental appraisal with LTP preparation (49 percent)

[5] Note that the LTPs do not generally differentiate between the terms 'consultation' and 'public participation'

4. Lack of guidance on how to take environmental considerations into account in the LTP (47 percent)

From the interviews it became apparent that the environmental appraisal had generally been undertaken after the LTP had been developed, and that there had been no real mechanism to enable the environmental appraisal to influence plan preparation. It can be argued that this is partly a function of the appraisal methodology, and that NATA/GOMMMS was not primarily aimed at influencing the plan development as such, but rather to ensure that the plan was consistent with the government's overarching objectives for integrated transport.

However, to conclude from these findings that environmental considerations did not influence the LTPs would be an oversimplification. The underlying ethos of the LTPs was to provide integrated transport solutions that reduced road traffic and the need to travel by private car. As expressed by one of the questionnaire respondents:

> *"[…] environmental principles were integral to the whole process of developing the LTP and the formal environmental appraisal was just one part of the overall process.*"

Environmental monitoring for English LTPs

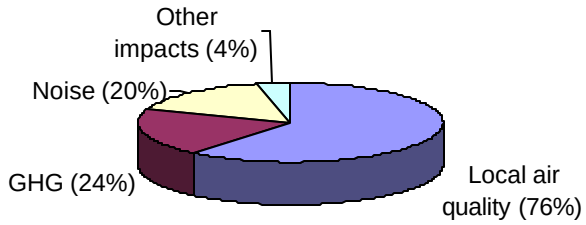
Directive 2001/42/EC (Article 10) introduces a specific requirement for monitoring the significant environmental effects of plan or programme implementation. Local highways authorities have not previously been subject to a direct requirement to monitor the environmental impacts of their LTP. However, authorities are required to monitor the performance of the plan, and to report progress towards performance indicators annually in an APR.

For those LTPs where an environmental aspect has been incorporated into performance indicators or targets, performance monitoring will thus involve some degree of either direct or indirect environmental monitoring.

The most commonly monitored environmental impact was local air quality, which 76 percent of questionnaire respondents stated that they monitored (Figure 2). 53 percent had developed local air quality performance indicators. The prevalence of local air quality monitoring was also reflected in the LTP documentation. Of the 17 LTPs that were examined, all 17 contained some mention of national air quality objectives and local air quality monitoring.

Figure 2
Environmental impact monitoring undertaken for English LTPs, as stated in questionnaires

Percentage of authorities that undertook monitoring, per impact type (N=45)



Apart from air quality, the most commonly monitored environmental impacts were greenhouse gases and noise (Table 2). 24 percent of authorities stated that they monitored greenhouse gases, although this was not mentioned in any of the LTP reports. 20 percent of questionnaire authorities stated that they monitored noise impacts, and noise monitoring was mentioned in six of the LTPs that were reviewed. Reference to the monitoring of cycle use and walking was found in six and five of the LTP reports respectively. Only four percent of the questionnaire respondents stated that they monitored environmental impacts other than local air quality, greenhouse gases or noise, and this included traffic and parking levels, cycle and pedestrian use, delivering travel choice and traffic management.

The most common type of environmental impact for which performance indicators had been set was local air quality, which 53 percent of respondents had developed. 22 percent of respondents had developed performance indicators for greenhouse gases, seven percent for noise, and two percent for 'other' environmental impacts, which included reducing the need to travel, increasing residential densities and promoting housing in town centres in order to reduce car journeys, and reducing the impact of traffic in towns and villages (Table 2). These figures are lower than the figures for environmental impact monitoring (the exception being greenhouse gases for which the figures are almost the same) - this may be an indication that some authorities undertake environmental impact monitoring through different mechanisms to LTP performance reporting (e.g. local air quality assessment and reviews).

Table 2 Extent of environmental monitoring undertaken for LTPs, as stated in the questionnaires. (Figures are given as total of all questionnaire respondents N=45)

Impact type	Environmental impacts quantified	Environmental performance indicators/ targets developed	Environmental impact monitoring undertaken
Local air quality	67 %	53 %	76 %
Greenhouse gases	49 %	22 %	24 %
Noise	56 %	7%	20 %
Other	31 %	2%	4%
None	27 %	44 %	22 %

Related to the extent of environmental impact monitoring is the issue of how the impacts are described. Over a quarter (27 percent) of the questionnaire respondents stated that they had not quantified any environmental impacts of their LTP (Table 2). Two-thirds (67 percent) had quantified impacts on local air quality, and approximately half had quantified noise impacts (56 percent) and greenhouse gases (49 percent). One third of respondents (31 percent) had quantified other impacts than those mentioned above, which mainly consisted of the remaining GOMMMS environmental sub-objectives (i.e. landscape, townscape, heritage of historical resources, biodiversity, water environment, physical fitness and journey ambience) and the number of accidents.

Some LTPs clearly illustrated how the aims and objectives of the LTP strategies were broken down into headline indicators and targets. In a few cases, the authority also provided timeframes by which the targets were to be met.

Authorities were also asked whether they had determined the significance of environmental impacts. 51 percent replied that they had a system for assessing the significance of the environmental impacts of the LTP, however when this was explored further through interviews it became evident that significance had predominantly been determined by a qualitative score, frequently on a simple three-point scale (e.g. positive impact, negative or neutral).

Suggestions for how to improve monitoring of LTPs

The strong focus on local air quality monitoring can to a large extent be explained by the fact that local authorities have a statutory duty to undertake air quality reviews and assessments under the Environment Act 1995. Authorities are required to carry out 'regular reviews and assessments of air quality in their area against standards and objectives in the national Air

Quality Strategy'. Where these are unlikely to be met, authorities must designate air quality management areas (AQMAs) and take action to remedy the problem.

Many of the LTP measures and strategies aim to reduce the need to travel and reduce reliance on the private car, and these may give rise to indirect environmental impacts. Traffic monitoring data often exists for the LTPs, for instance for traffic flows, public transport patronage, or the modal split of journeys, however there is generally no explicit monitoring of the environmental impacts of the traffic reduction measures.

The questionnaire respondents were asked to select four factors (from a list of nine) which they believed would be the most effective for increasing or improving environmental monitoring practice for the LTPs. Respondents were also given the opportunity to add other factors that they considered to be important. Interestingly, more than half of all the respondents selected the 3 same factors:

1. Allocation of more financial resources for monitoring environmental impacts of LTP (76 percent)
2. Availability of advice on how to assess the significance of environmental impacts (58 percent) and
3. More advice on how to determine which impacts require monitoring (53 percent)

Other factors that received a high response rate were "the introduction of a requirement to set environmental performance indicators for LTP" (44 percent response rate), "more training for those undertaking the monitoring of environmental impacts of LTP" (42 percent), "stricter requirements to include an environmental monitoring programme in the LTP" (31 percent) and "introducing a mechanism to link monitoring data with LTP implementation and management" (also 31 percent).

Quality control and extent and coverage of report contents

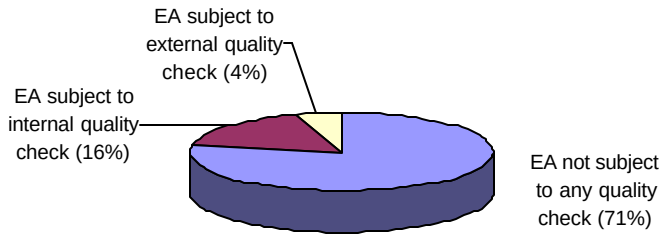
Directive 2001/42/EC includes a requirement related to the quality of the documentation of the strategic environmental assessment, calling for Member States to '*ensure that environmental reports are of a sufficient quality to meet the requirements of* [the] *Directive*' (Article 12.2) and to communicate to the Commission any measures taken concerning report quality (Article 12).

In order to investigate how this requirement can be met for English LTPs, two aspects of current practice were examined; firstly to establish whether there are any existing mechanisms for quality control for LTPs, the appraisal process or the appraisal report; and secondly to investigate the extent and coverage of LTP reports and appraisal documentation for the LTPs that were submitted in 2000.

Mechanisms for quality control

LTPs are subject to a quality assessment by the DfT, which is used partly for the purpose of determining the level of resources to allocate to the local highways authorities. The quality assessment is undertaken according to criteria set out in Annex D of the *Guidance on Full Local Transport Plans* (DETR 2000c). Most of the local highways authorities (87 percent) stated that they had used these criteria as an informal quality check prior to submitting the LTP. One authority had undertaken a formal quality assurance of their LTP, whereas 13 percent of questionnaire respondents stated that they had not subjected the LTP to any form of quality check.

Figure 3
Percentage of authorities that undertook a quality check of the environmental appraisal of their LTP (N=45)



Quality control of the environmental appraisal was found to be less frequent, with the majority of respondents (71 percent) stating that the appraisal had not been subject to any form of formal or informal quality check (Figure 3). 20 percent of the authorities had undertaken some form of quality control of the appraisal, either internally within the authority (16 percent) or by an external body (4 percent).

None of the LTP documents that were reviewed made specific reference to quality control or quality assurance of the environmental appraisal, and only one authority provided evidence of a review of their LTP against the criteria in Annex E of the guidance.

Extent and coverage of documentation

The extent and coverage of information provided in the existing LTP documentation was examined through the questionnaire and the contents review of LTP documentation. The purpose of the contents review was to establish the extent to which the information required in the environmental report by Directive 2001/42/EC Annex I (summarised in Box 3) is provided

in the existing LTP documentation. Due to the fact that the documentation of the environmental appraisal was generally limited to an AST, the entire transport plans were included in the contents review.

Box 3: Contents of the environmental report as required by Directive 2001/42/EC

1. An outline of the LTP and its relationship with other plans and programmes.
2. A description of the current state of the environment, and how this is likely to change if the LTP is not implemented.
3. A description of the environmental characteristics of areas which are likely to be affected by the LTP.
4. Any existing environmental problems which are relevant to the LTP.
5. Environmental protection objectives which are relevant to the LTP and how these have been taken into account during LTP preparation.
6. Likely significant effects on the environment.
7. Measures to mitigate adverse effects of the LTP on the environment.
8. The reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken.
9. Proposed monitoring of significant environmental effects.
10. A non-technical summary of the above information.

The questionnaire respondents were presented with a list of the report requirements of Directive 2001/42/EC, and asked to indicate whether or not the information had been included in the LTP. The responses are summarised below (Table 3), and have been divided into three categories; good coverage for information that more than 70 percent of authorities had included in their LTP, average coverage for information that between 40 and 70 percent had included, and poor coverage for information that had been provided in less than 40 percent of LTPs.

Whilst the questionnaire findings on report contents provide an indication of the coverage of information in the LTPs, the questionnaire is a relatively blunt instrument for exploring this issue, enabling only a 'yes' or 'no' response to whether the information is provided.

The contents review of the LTP reports provides a more detailed review, and the findings are summarised here for each information requirement of Directive 2001/42/EC (excluding monitoring and integration into decision-making which are explored in the other parts of this paper). Considering these LTPs were developed according to guidance that pre-dates the Directive requirements, it is important to note that the findings presented here should be regarded as an analysis of how existing practice can be adjusted to meet the reporting requirements of the SEA Directive, rather than a judgement of LTP performance.

Table 3. Coverage of information required by Directive 2001/42/EC in existing LTPs, as stated by questionnaire respondents (N=45)

Good (over 70%)	
1.	An outline of the LTP (96%) and its relationship with other plans and programmes (87%)
4.	Any existing environmental problems which are relevant to the LTP (82%)
5.	Environmental protection objectives which are relevant to the LTP and how these have been taken into account during LTP preparation (73%)
10.	A non-technical summary of the above information (71%)
Average (40-70%)	
3.	A description of the environmental characteristics of areas which are likely to be affected by the LTP (60%)
6.	Likely significant effects on the environment (58%)
Poor (less than 40%)	
2.	A description of the current state of the environment, and how this is likely to change if the LTP is not implemented (38%)
9.	Proposed monitoring of significant environmental effects (38%)
8.	The reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken (31%)
7.	Measures to mitigate adverse effects of the LTP on the environment (29%)

The findings of the LTP contents review are summarised below, and have been categorised into four groups (A-D) according to how the provision of information in the LTPs that have been reviewed compares to the information requirements for the environmental (SEA) report.

A. Information requirements that are met in existing LTPs

(10) Non-technical summary of the environmental appraisal is provided in the AST. However this is frequently the only information provided. A summary of the LTP strategy is often provided by an executive summary.

B. Information is provided but needs to be expanded, or made more explicit

(1) An outline of individual LTP strategies is generally spread throughout the document, but the plans do not tend to provide a clear overview of the whole LTP in one place, and very few plans provide maps.

(2) Some information on the existing environmental baseline is provided, but this is mainly limited to local air quality. There is some reference to e.g. noise assessments but very little data is actually provided in the LTPs.

(6) A summary of the likely effects for each of the NATA/GOMMMS environmental sub-objectives is provided in the AST, however there is little evidence of any underlying analyses or how the AST scores were derived at.

(7) Mitigation measures in the 'traditional' sense are not included in the LTPs, since the appraisals do not tend to identify adverse environmental impacts. However, many of the traffic reduction measures and schemes to improve safety and accessibility can possibly be considered a form of 'mitigation' in the sense that they reduce potential problems.

C. Issues for which general information has been provided, but where the information needs to be made more specific to the transport plan

(1) A list of other plans and programmes is currently provided, but the relevance of these to the LTP need to be made more explicit.

(4) A description of existing environmental problems needs to be made more specific to the local situation, rather than a generic description of the environmental and human health problems associated with transport and road traffic.

(5) A list of environmental protection objectives is currently provided, but it needs to be made more explicit how these have been taken into account.

D. Information requirements which are not met in existing documentation

(2) A description of how the future environmental baseline may evolve in the absence of the plan is generally lacking.

(3) A few of the LTPs include a general description of the environmental characteristics of the local authority area, or refer to existing environmental protection designations. However, a description of environmental characteristics of areas likely to be significantly affected by the plan is generally lacking.

(8) The reasons for selecting the alternatives dealt with and a description of how they were assessed and compared in terms of environmental impact is lacking in the documentation.

(9) Monitoring of significant environmental impacts is lacking in the current LTP system. Existing monitoring is linked to measuring performance rather than being linked to the environmental impacts of the plan.

Suggestions for how to meet the SEA Directive's requirements for quality control

Some of the information that is required in the environmental (SEA) report was already documented in the LTPs that were submitted in 2000, although it may be necessary to

present some of the information in a different way in order to meet the requirements of Directive 2001/42/EC.

The forthcoming information requirements that were not met in the last LTPs can to a large extent be attributed to differences in the NATA/GOMMMS appraisal approach and the SEA methodology. Whereas NATA/GOMMMS was designed to assess the performance of transport proposals against the UK's overarching objectives for integrated transport, the SEA Directive places a greater emphasis on the identification of environmental impacts, environmental baseline data and impact significance.

During the interviews, local authority practitioners were asked what they would consider to be the most effective way to ensure the quality of the SEA process and documentation. The findings from interviews undertaken to date indicate that practitioners consider the availability of prescriptive guidance for how to undertake SEA of the next LTPs as the most important driver for ensuring the quality of both the environmental assessment process and of the environmental (SEA) report.

The call for detailed and timely guidance may be partly explained by history- the fact that the guidance for the last LTPs was issued within six months of the date by which the plans had to be submitted meant that many of the authorities felt they were having to second guess what the appraisal should constitute.

Key challenges for implementing Directive 2001/42/EC for LTPs

This paper has presented some of the key research findings to date and provided suggestions for how the requirements of Directive 2001/42/EC relating to integrating the SEA into plan preparation, monitoring significant environmental impacts, and ensuring the quality of environmental reports, might be met for English LTPs.

The findings from this research indicate that the environmental appraisal had very little influence on the extent to which environmental considerations were taken into account during plan preparation for the previous LTPs that were produced in 2000. Environmental principles were nevertheless integral to the LTP process, and reducing the environmental impacts of transportation was one of the five overarching objectives for the LTP process. One of the main challenges for ensuring the effective implementation of Directive 2001/42/EC for the next LTPs due in 2005 will therefore be to ensure that the SEA provides valuable input at the right time for the next LTPs, and to avoid the SEA becoming a tick-box exercise that is undertaken merely to fulfil a requirement.

Monitoring of LTPs is currently not linked to the potential environmental impacts of plan implementation, but is instead focussed on measuring the performance of the transport plan against targets and indicators. Performance indicators may include an environmental

component. Environmental impacts will have to be identified and impact significance determined in order to meet the monitoring requirements of the Directive.

Local air quality is frequently the only direct environmental impact of the LTP for which data is available. Local air quality assessment and review is statutory requirement under the Environment Act 1995, and monitoring is not directly linked to the transport policies and schemes of the LTP.

One of the underlying challenges that were identified through both the questionnaires and interviews was the issue of how to determine the environmental impacts of traffic management measures. As stated by one of the questionnaire respondents:

> *"The LTP required us to propose measures to improve facilities for buses, cycling, walking, disabled people etc with a presumption that these would be better for the environment than car use. The specific impact of each measure is pure guesswork and therefore complicated and expensive quantitative assessment of the impacts would not be justified."*

Local highways authorities regard the provision of prescriptive guidance as the most effective way to ensure that the quality of the SEA process and environmental report meets the requirements of Directive 2001/42/EC for the next LTPs. With most authorities having limited resources to meet an increasing work load, the underlying message is that that "what gets measured gets done".

Finally, it is important to note that the fact that LTPs are formal bidding documents for financial resources has important implications for the effectiveness of SEA for these plans. There is concern among local highways authorities that negative environmental impacts identified and documented as part of the SEA process will reflect negatively on their plans and adversely affect fund allocation. This issue will have to be resolved for the SEA Directive to have a real effect on the practice of local transport planning in England.

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