Managing local traffic-related air pollution in England

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Outline of Presentation

1. Local Air Quality Management framework in the UK.

2. Integration of air quality management into the Local Transport Planning (LTP) process.

3. Research objectives and methodology.

4. Summary of key findings.

5. Conclusions: theoretical model.
Local Air Quality Management (LAQM)

- Responsibility on local government to work towards achieving national air quality objectives for 7 key air pollutants

- Declare Air Quality Management Areas (AQMAs) as spatially designated zones.

- Prepare Air Quality Action Plan (AQAP) which outlines the mitigation and management measures for improving the situation.

Explanatory Text:
All local authorities must produce a USA every three years starting in 2009. In the intervening years, all local authorities must produce a R&A-PR. If at any stage a local authority identifies a problem, then they should proceed to a DA. This DA is in addition to NOT (Not Exceeding Local or National Standards). These reports should be submitted in April of each year. If the local authority identifies an exceedance in their DA then they should declare an AQMA within 12 months. Following this, the local authority must produce a FA, which has the power to amend/revoke maintain an AQMA, within 121 months of declaring. The local authority should produce an AQAP within 18 months of declaring and following this, produce an annual AQAP-PR to provide an update on progress implementing the AQAP.

Proffering solutions
### Contributions of traffic to local air pollution

<table>
<thead>
<tr>
<th>Pollution sources</th>
<th>%</th>
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<tbody>
<tr>
<td>Road Transport</td>
<td>89%</td>
</tr>
<tr>
<td>Industrial</td>
<td>4.5%</td>
</tr>
<tr>
<td>Domestic</td>
<td>2.5%</td>
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<tr>
<td>Transport &amp; Industrial</td>
<td>3.5%</td>
</tr>
<tr>
<td>Transport &amp; Domestic</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.5%</td>
</tr>
</tbody>
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Source: AQMRC Review and Assessment database (2008)

- Over 90% of AQMAs declared are due to traffic-related emissions.
- Policy disconnect between the diagnosis and the solutions proffered through air quality action planning.
- Necessity of addressing air quality through transport planning.

Source: City of York Council

Source: www.airquality.co.uk
Air Quality as a shared priority in LTP2

- National Transport Strategy and Vision
- Local Transport Strategy
- Shared Priorities
- Delivery Tools
  - Alternatives to the Car
  - Smarter travel
  - Demand Management
- Air Quality Action Plan
  - Enable funding for air quality management measures
  - Multi-disciplinary approach to LAQM
  - Encourage inter-professional engagement between EHO and transport planners
  - Land Use/Planning Integration
  - New Infrastructure

TRANSPORT WHITE PAPER 1998
A New Deal for Transport

LOCAL TRANSPORT PLAN
- Tackling Congestion
- Delivering Accessibility
- Ensuring Safer Roads

Better Air Quality
Air quality as a shared priority within the LTP2.

Impact of integration on achieving air quality objectives.

Implication of multi-tier local government arrangements.

Capacity for inter-professional engagement between EHOs and transport planners.

**OUTCOME:** evidenced-based recommendations for managing traffic-related air quality problems through transport planning.
Methodology

Two rounds of questionnaire survey in 2007 and 2008 administered to over 200 EHOs and transport planners.

- **QUESTIONNAIRE SURVEYS**
- **LTP DOCUMENT APPRAISAL**
  - Appraisal of 23 LTP2 documents against air quality criteria.
- **CASE STUDY INTERVIEWS**
  - In-depth case study interviews with officers from 8 local transport authorities.
Institutional complexities

DEFRA

achieve

Air Quality Objective

devolve

Environmental Health Officers (Unitary/Metropolitan Authorities)

Inter-professional engagement

Transport Planners (Unitary/Metropolitan Authorities)

implement

DfT

measure progress against

Shared Priorities

Inter-professional engagement

Transport Planners (County Councils)

Review and Assessment

Air Quality Action Plans

Integrate traffic-related measures

Local Transport Plans
Question: In addressing transport-related AQ problems in your LA, which approach do you think is more effective?

- LTP is widely considered as an appropriate policy for managing traffic-related local air quality.
Question: “Do you think the transport planners paid enough attention to the Action Plan during the implementation of the LTP2?”

- Contrasting views from both EHOs and transport planners is indicative of the challenges of integrating two separate policy packages with different priorities and objectives.

Unequal expectation of the process.
Relative importance of air quality within LTP

- Shared not ‘equal’ priorities.
- Funding allocation.
- Air quality and congestion management.
- Air quality vs. other priorities.

“improving air quality risks conflicting with improving accessibility in some cases. And we consider accessibility as vital to the economy.” [Transport planner]

- Political intangibility.

“For an officer point of view, I can understand the health impact of air quality but this is difficult to translate in reality to the public compared to the way traffic congestion and road safety issues can be communicated.” [County transport planner during case study interview]

Shared priorities’ importance based on time, resources and funding allocation, by the transport planners.

<table>
<thead>
<tr>
<th>Priorities</th>
<th>n</th>
<th>Mean (1-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>41</td>
<td>1.46</td>
</tr>
<tr>
<td>Congestion</td>
<td>41</td>
<td>2.02</td>
</tr>
<tr>
<td>Accessibility</td>
<td>41</td>
<td>2.05</td>
</tr>
<tr>
<td>Other Local Priorities</td>
<td>39</td>
<td>2.33</td>
</tr>
<tr>
<td>Air Quality</td>
<td>41</td>
<td>2.98</td>
</tr>
</tbody>
</table>

1= very high priority, 6= very low priority
Communication between air quality officers and transport planners

• Professional differences.

“As with many joint ventures, successful operation requires that a measure of trust is built up between all involved. Two sets of professionals with different backgrounds and priorities will have different takes on the same subject” (Transport planner)

• Sense of engagement.

“Communication is often a little one-way generally. The transport planners …. don’t always involve us sufficiently to discuss how to maximise [air quality] benefits from the measures in the LTP2.” (Questionnaire survey response from Air quality officer)

Some of the measures within the action plan “creates a danger that the LAQM process can be used or hijacked as a way of trying to deliver other things which are on this local authority shopping list, and you have to say no!” (Transport planner during case study interview)
Theoretical model for managing traffic-related air pollution

**Central Government** (Defra and DfT)

- Identify and clarify the role of local government

**Political Integration**

- Review regulatory framework
- Engage the media and general public

**Institutional Integration**

- Review administrative functions and structure

**Capability and Capacity Development**

- Professional and academic training and development
- LAQM monitoring and modelling data
- Transport planning statistics and data

**Local Government** (EHOs, Transport planners, Climate Change Officers)

- Engagement with media and general public

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**Institutional Integration**

- Local Government (EHOs, Transport planners, Climate Change Officers)

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**Target Integration**

- Central Government (Defra and DfT)

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**Political Integration**

- Local Government (EHOs, Transport planners, Climate Change Officers)
And…. 

Questions………..

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