

# Opportunities, barriers and challenges for the co-management of air pollution and carbon emissions in South West England

S. T. Baldwin<sup>a</sup>, J.W.S. Longhurst<sup>a</sup>, E.T. Hayes<sup>a</sup>, J.R. Merefield<sup>b</sup>, M. Everard<sup>c</sup> & W. Pope<sup>d</sup>

(Air Quality Management Resource Centre, University of the West of England, Bristol Tel:0117 32 83013 e-mail: simon2.baldwin@uwe.ac.uk webpage: www.uwe.ac.uk/aqm/simon)



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## 1. Introduction

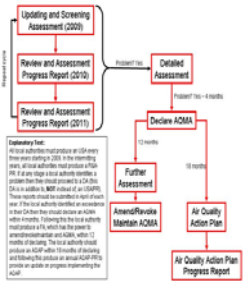
Climate change is a global concern; however, it is at a local level where many of the mitigation measures can be implemented. Local Authorities are uniquely placed to provide vision and leadership to their local communities, and their wide range of responsibilities and stakeholder contacts means that they must be critical to delivering the UK's Climate Change Programme [1]. While it is important to build carbon management policies into the full spectrum of local authority duties and responsibilities, integrating carbon management into specific environmental policy frameworks could prove particularly beneficial. This project examines the relationship between the policy process for local authority management of air quality and local government initiatives and strategies for carbon mitigation. It seeks to explore the policy and process linkages between the sources of carbon emissions and air quality pollutants in order to assess the potential benefits and/or limitations of an integrated approach for their co-management at a local and regional governance level

### Research Questions

- Can integrating carbon management into the existing statutory framework for local air quality management enhance the rate and scale of action by local government in tackling carbon emissions?
- Is the co-management of carbon and air pollution emissions a more effective and efficient use of local authority expertise, time and resources than pursuing the areas separately?

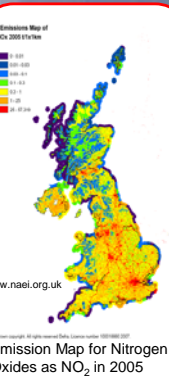
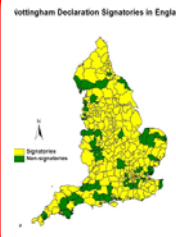
## 2. Air Quality Management

The current system for air quality management in the UK was legislated through the Environment Act 1995 [2]. Local authorities (LA) are required periodically to review air quality in their area for specific pollutants and to assess current and projected future levels of air quality [2]. These reviews are assessed against a number of national Air Quality Objectives (AQOs). Where an area exceeds, or is likely to exceed the AQOs by a stated date, local authorities are required to designate an Air Quality Management Area (AQMA) and develop an Air Quality Action Plan (AQAP) outlining measures they will take to work towards achieving the objective [3].



## 3. Carbon Management

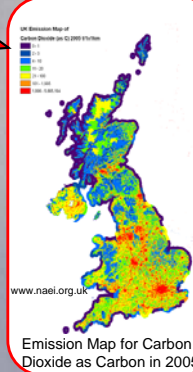
A comprehensive and statutory framework for local government management of carbon emissions has yet to emerge from the policy rhetoric. Despite this there are numerous voluntary declarations, initiatives, and guidance documents available for local authorities in the UK to enable locally-driven carbon reduction. The most widespread of these initiatives is the Nottingham Declaration on Climate Change [4]. The Nottingham Declaration, a local authority initiative signed by 329 local government bodies to date (approximately 70%), acts as a public statement by a local government of their intentions to take action to tackle climate change issues at a local level. Local authorities signing the declaration commit to three broad aims; acknowledging that climate change is occurring, welcoming and engaging with the government targets and committing to working at a local level on carbon management [4].



Emission Map for Nitrogen Oxides as NO<sub>2</sub> in 2005

## 4. Rationale

To date, the UK has endeavoured to fulfil its international obligations on mitigation of carbon emissions mainly through policies driven and implemented at a national level. However, if the UK is to succeed in curbing its carbon emissions action will also be required at a local level. Local authorities as environmental regulators are well suited for this task. Through the local air quality management process, local authorities are required to monitor and measure the specified air pollutants, the sources of which predominately being transport, industrial and domestic. These sources are also common to the primary sources of carbon emissions at a local level [5]. On the basis of these observations, it is hypothesised that integrating carbon management into the existing LAQM policy package could enhance the rate and scale of action by local authorities in tackling carbon emissions.



Emission Map for Carbon Dioxide as Carbon in 2005

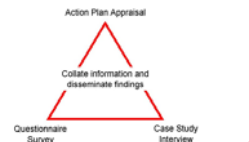
## 5. Aims

- To explore the opportunities for using the statutory LAQM policy and operational framework to provide effective and efficient action on carbon management by local authorities.
- To investigate progress and achievements in carbon management experienced by South West (SW) local authorities via a time series of questionnaire survey.
- To investigate the barriers faced by SW local authorities in managing carbon.
- To develop a model of practice for integrating LAQM and carbon management within local authorities.

## 6. Methodology

The research method selected triangulates information from three data sources.

- A time series of questionnaires distributed in 2007 and 2008 tracking local authority actions in LAQM and carbon management.
- An appraisal of the Air Quality Action Plans developed by SW local authorities to identify co-management actions, opportunities for co-management and missed opportunities present in the plan set.
- A suit of case studies conducted with local and county authorities throughout the SW region.

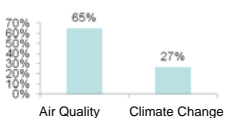


## Opportunities for integration

### Inter-professional communication

Due to the multiplicity of sources, both air quality and carbon management relies of collaborative working with emitters. LAQM has existing contacts

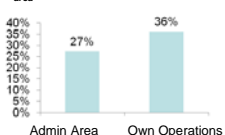
Percentage of respondents with and external steering group for air quality/carbon management



"To make a difference there has to be contact with emitters at a local level and air quality officers are best suited for this role, as there would already be contacts and expertise regarding air quality, emissions etc"

The absence of reliable emissions data makes the production of robust emissions inventories (important for establishing baselines, the first step in achieving reductions) more difficult and their subsequent use in informing policy is limited

Percentage of SW local authorities that have produced a carbon emissions inventory for their own operations and their administrative area

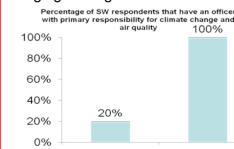


Which aspect of the LAQM process would be most suited to integrating climate change management?	Mean Score
Emissions Inventories	4.16
Action Plan	3.53
Updating and Screening Assessment	3.00
Detailed Assessment	2.26
Further Assessment	2.00
Progress Report	2.00

## Barriers to integration

### Lack of carbon management staff

Local authority personnel can possess a great deal of technical skill on specific technical issues, however there is a lack of professionals with wide ranging strategic skills in carbon management



"Although there are obvious links between air quality and carbon emissions, most air quality officers are also responsible for other areas of work and wouldn't have the capacity to undertake the extra duties of carbon"

### Priorities

Two main reasons that carbon management is low on LAs priority list  
The absence of statutory requirement  
Difficulty coordinating between County and District Council

Why has your LA chosen not to produce a climate change strategy at this point?	Mean Score
Not a statutory requirement	4.0
Other issues have higher priority	2.8
Lack of time	2.8
Difficulty coordinating between County and District Council	2.5
Lack of awareness from councillor	2.5
Difficulty coordinating different departments within your LA	2.2
Lack of funding	2.0
Lack of government guidance	1.7

## Challenges for integration

### Win-win vs trade off actions in the South West

Measure	Win-Win	Trade-off
Park and Ride	3	
Physical Traffic Management	8	21
Re-routing and road hierarchy	3	13
Access Control & Clear Zones	4	8
Land Use Planning	5	4
Parking Management & Charging	4	6
UTMC Systems	1	2
Infrastructure Devt.	3	3
Reallocated Roadspace	2	
Fleet Management & clean fuels	10	1
Freight Measures	4	6
Total	47	64

Measure	Win-Win	Trade-Off
Public Transport Initiatives - Bus	16	0
Public Transport Initiatives - Rail etc	5	
Development of Cycling and Walking	21	1
Partnerships & Travel Plans (Workplace & School)	28	
Promotion, Education & Awareness Raising	17	4
Roadside Emissions Testing	7	
Total	94	

### Lack of guidance

How strongly do you agree with this statement?	Mean Score
There is a need for more prescriptive guidance in the TG03 guidance documents for carbon management within LAQM	4.11

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- Nottingham Declaration on Climate Change. Energy Savings Trust Online: <http://www.energysavingstrust.org.uk/boards/subsites/localauthorities/NottinghamDeclaration>
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## 8. Conclusions

- Local authorities have a statutory responsibility for local air quality but not carbon management
- Responsibility for air quality and carbon management is split in local authorities
- Existing skills in LAQM can be transferable to local carbon management
- Stronger communication links are required between local authorities and relevant stakeholders
- There is a general consensus that LAQM should consider carbon emissions
- Care must be taken to ensure this is done without incapacitating AQAPs
- More prescriptive guidance is required for carbon management within the LAQM framework (win-win vs win-lose)