

Monitoring of Climate Change in the Regional Spatial Strategy

Introduction

Climate change is generally accepted to be the change in long term weather conditions resulting from global warming. The effect will be the increasing frequency and severity of extreme weather events, including longer hotter summers, warmer wetter winters, higher wind speeds, and stormier weather.

Climate change is caused by the release of greenhouse gases into the atmosphere through human activity and particularly the burning of fossil fuels. The most significant greenhouse gas is carbon dioxide (CO₂) which contributes 85% of emissions; other greenhouses gases are methane, nitrous oxide, hydrofluorcarbons, perfluorocarbons and sulphur hexafluoride.

The responsibility for reducing the release of greenhouse gases lies with individuals and government at every level. Consequently, the RSS is obliged to put in place policies to complement the Regional Climate Change Action Plan and, as with all RSS policies, monitor the implementation and effect.

Monitoring Climate Change

The Sustainability Appraisal of the RSS Preferred Option highlighted the need to monitor climate change and in the revised Monitoring Framework paper the issue is acknowledged as early as the first paragraph. However within the technical element of the paper it is apparent that more consideration needs to be given to this aspect. Further, from the discussion at the current ongoing RSS Phase 2 Examination in Public, it was apparent that not only is there an accepted appetite for this to be developed but also a widely accepted need.

Current statement

The current statement in respect of the monitoring of Climate change within the RSS amounts to the panel below:

Indicator	Type	Details	WMRA response
CO ₂ emissions	Significant Effects	CO ₂ emissions from housing stock, by local authority.	A climate change indicator to be developed as a significant effects indicator, the precise wording to be defined following the outcome of the West Midlands Climate Change Action Plan.

This is plainly inadequate and fails to take account of the developments in this field since the Preferred Option was published in December 2007.

Subsequent developments

There have been many developments in producing monitoring indicators at national level but fewer at regional or local authority level. Potentially the most significant developments have been around the work associated with DCLG LAA National Indicator 186 performed by AEA on behalf of DEFRA and the subsequent work for WMRA (March 2009) which, in combination with each other essentially provide:

- Justification for a steeper downward trajectory in CO₂ emissions in the WMR than nationally due to an inadequate ability of national initiatives on their own to achieve the necessary reduction in emissions. The AEA data would suggest a Regional target of a reduction by 36% reduction in CO₂ emissions by 2026;
- For NI 186 we now have reasonably fine grained estimations of CO₂ emissions which will (for example) permit us to examine the change in CO₂ emissions down to LA level in respect of domestic, industrial and transport activities. The baseline year is 2005; 2006 data is available and will be updated annually enabling a cost effective approach to annual refreshment.

Suggested Indicators

The proposed monitoring indicators are:

- CO₂ Reduction from Local Authority Operations;
- Per capita reduction in CO₂ emissions in the Local Authority Area
- Planning to Adapt to Climate Change

These indicators are described more fully in pages 3-6.

The first two indicators considered are output indicators and are solely concerned with one greenhouse gas CO₂. The assumption is implicit, in the choice of indicators, that any change in the amount of CO₂ emissions is a suitable proxy for indicating direction of change in other greenhouse gas emissions.

The final indicator is a process indicator; monitoring the commitment of Local Authorities within the Region to policies to deal with climate change.

Measuring the outcome of changes in greenhouse gas emissions, in terms of impact on the climate is not easily. After discussions with the Meteorological Office, weather indicators were rejected as unsuitable. Further consultations with the Environmental Agency and other experts will be held in an attempt to identify a suitable outcome indicator.

Other appropriate indicators, including emissions of other greenhouse gases, will be added to the framework as they become available or are considered necessary.

WMRA
22nd June 2009

INDICATOR	CO ₂ Reductions from Local Authority Operations
Effect To Monitor	Percentage CO ₂ Reductions from Local Authority Operations
RSS Objectives	<p>a) To make the MUAs of the West Midlands increasingly attractive places where people want to live, work and invest</p> <p>b) to secure the regeneration of the rural areas of the Region</p> <p>g) to ensure the quality of the environment is conserved and enhanced across all parts of the Region</p>
Policies	SR1 Climate Change
Type of Indicator	Output Indicator
Definition	CO ₂ emissions from the delivery of local authority functions
Target	Continuous year on year reduction in CO ₂ emissions
Justification	<p>This is a national indicator - NI 185</p> <p>Action by local authorities is likely to be critical to the achievement of Government's climate change objectives. The public sector is in a key position to lead on CO₂ emissions reduction by setting a behavioural and strategic example to the private sector and the communities they serve. The manner in which the local authority delivers its functions can achieve CO₂ emissions reductions.</p>
Source of Data	DCLG Data Interchange Hub – Local Government
Geographical Level	Local Authority
New / Existing	New
Notes	First data set to be released will relate to the 2008/9 monitoring year

INDICATOR	CO ₂ Emissions
Effect To Monitor	Total CO ₂ emissions generated within the West Midlands Region
RSS Objectives	<p>a) To make the MUAs of the West Midlands increasingly attractive places where people want to live, work and invest</p> <p>b) to secure the regeneration of the rural areas of the Region</p> <p>g) to ensure the quality of the environment is conserved and enhanced across all parts of the Region</p>
Policies	SR1 Climate Change
Type of Indicator	Output Indicator
Definition	<p>Total CO₂ Emissions</p> <p>CO₂ Emissions by sector:- industry and commercial, domestic, road transport.</p> <p>CO₂ Emissions per capita</p>
Target	<p>Continuous year on year reduction in CO₂ emissions</p> <p>36% reduction between 2006 and 2026</p>
Justification	<p>National Indicator NI 186 – Per Capita reduction in CO₂ emissions</p> <p>In recent years , increasing emphasis has been placed on the role of regional and local government in contributing to energy efficiency improvements.</p>
Source of Data	DCLG Data Interchange Hub – Local Government
Geographical Level	Local Authority, Region
New / Existing	New
Notes	Transport sector excludes aviation

INDICATOR	Adapting to Climate Change
Effect To Monitor	Response of local authorities within the West Midlands to impact of climate change
RSS Objectives	<p>a) To make the MUAs of the West Midlands increasingly attractive places where people want to live, work and invest</p> <p>b) to secure the regeneration of the rural areas of the Region</p> <p>g) to ensure the quality of the environment is conserved and enhanced across all parts of the Region</p>
Policies	SR1 Climate Change
Type of Indicator	Process Indicator
Definition	<p>Level of preparedness of local authorities against five levels of performance</p> <p>Level 0 Baseline</p> <p>Level 1 Public commitment and prioritised risk based assessment</p> <p>Level 2 Comprehensive risk-based assessment and prioritised action in some areas</p> <p>Level 3 Comprehensive action plan and prioritised action in all priority areas</p> <p>Level 4 Implementation, monitoring and continuous review</p>
Target	All Local Authorities within the West Midlands to achieve level 4
Justification	<p>This is a national indicator - NI 188</p> <p>To ensure local authorities are sufficiently prepared to manage risks from a changing climate</p>
Source of Data	DCLG Data Interchange Hub – Local Government
Geographical Level	Local Authority
New / Existing	New
Notes	<p>For more detail see “Adapting to Climate Change”, Guidance notes for NI 188</p> <p>First data set to be released will relate to the 2008/9 monitoring year</p>