

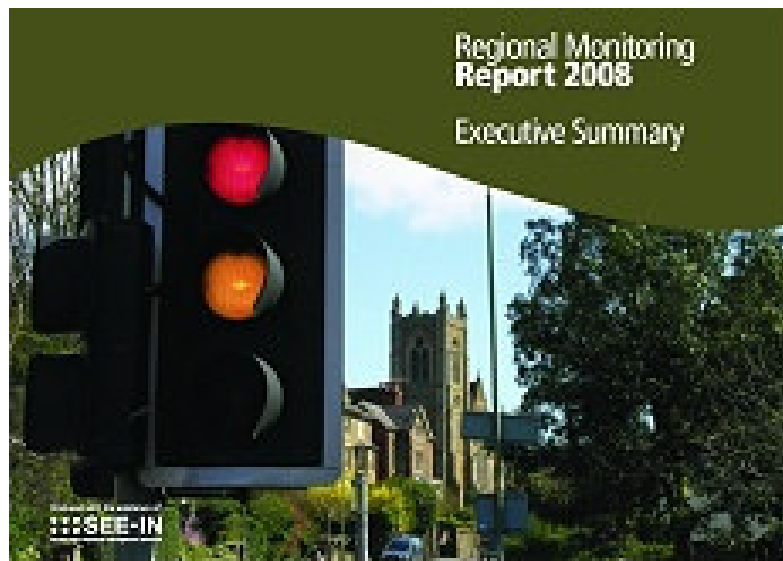
Indicators: what you measure matters

David Payne

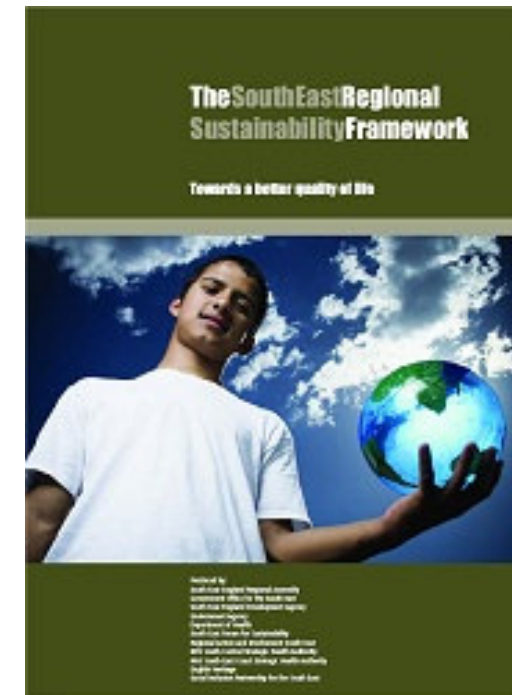
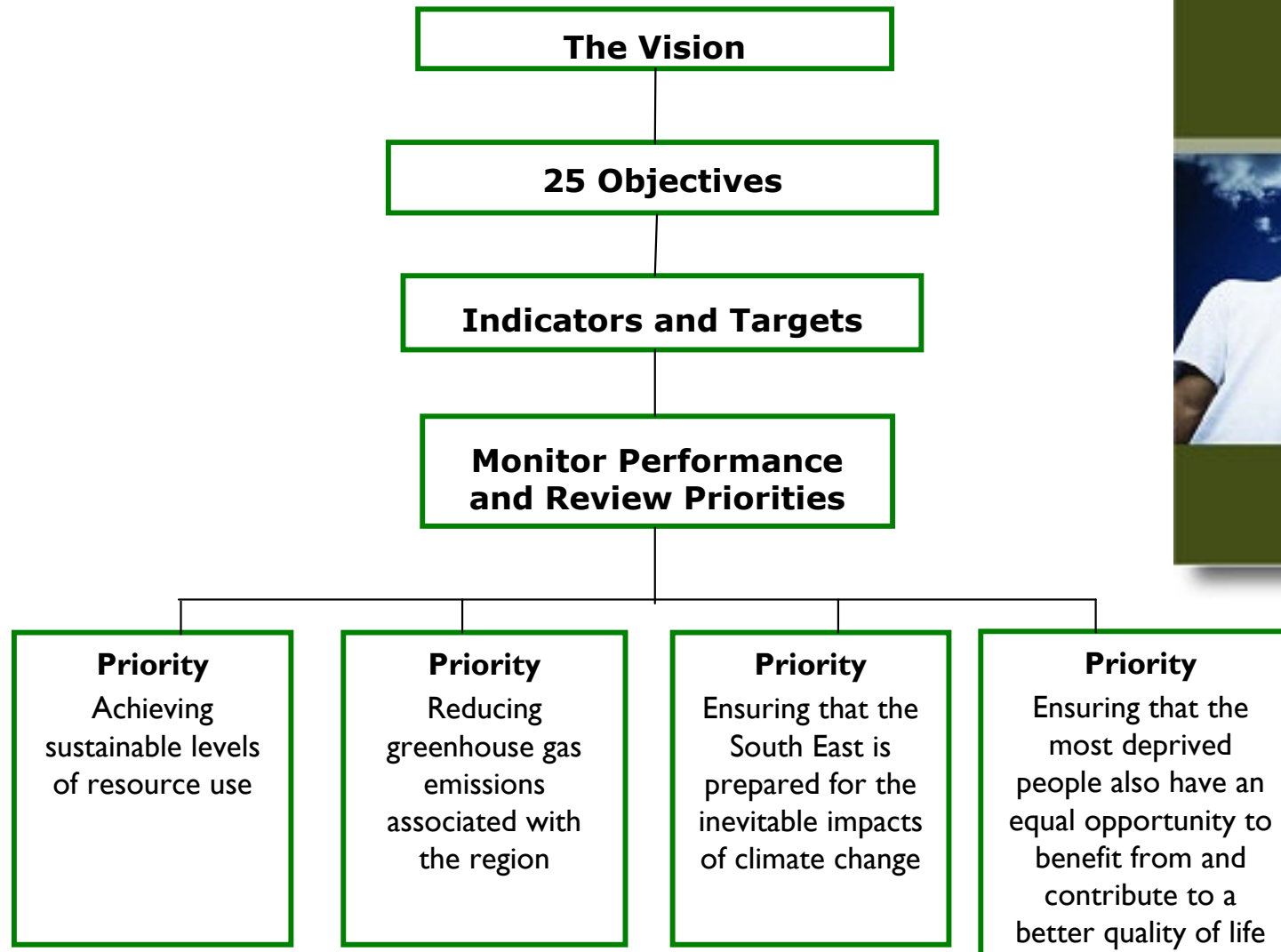
**Planning Manager
South East England Partnership Board**

Who we are and what we do

- SEEDA board members & Councillors
- Prepare the Regional Strategy
- Produce the Regional Delivery Plan
- Monitor the Region's Performance



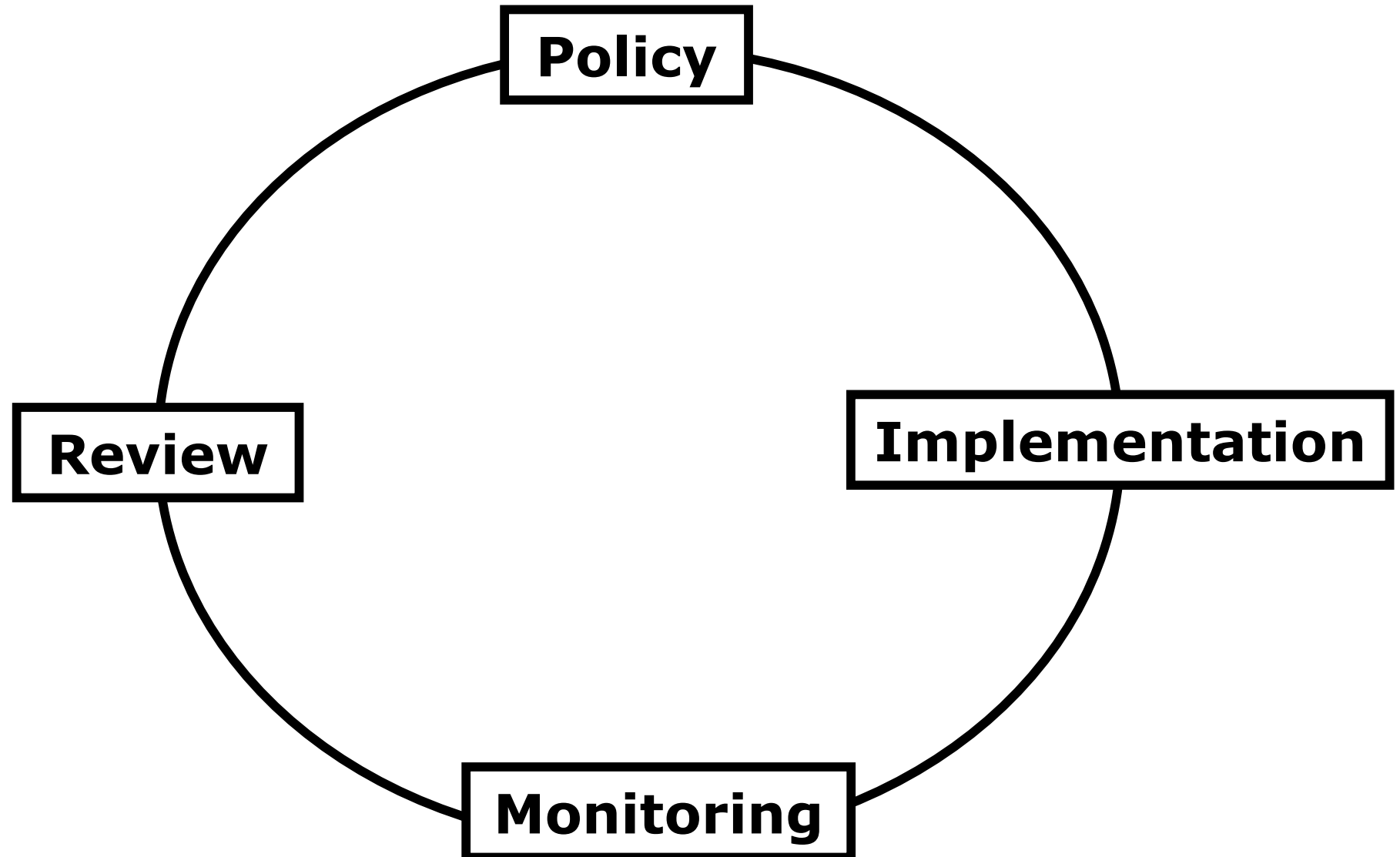
Regional Sustainability Framework



Why monitor?

- Establish what is happening now, what may happen in the future and then compare these trends against existing policies and targets to determine what needs to be done
- Monitoring helps to address questions such as:
 - are policies achieving their objectives and in particular are they delivering sustainable development?
 - have policies had unintended consequences?
 - are the assumptions and objectives behind policies still relevant?
 - are the targets being achieved?

Purpose of indicators



Output/outcome indicators

Used to assess the performance of policies through the measurement of the quantifiable outputs and outcomes of the policy.

POLICY HI: REGIONAL HOUSING PROVISION 2006 - 2026

Local planning authorities will allocate sufficient land and facilitate the delivery of 654,000 net additional dwellings between 2006 and 2026...etc

Indicator: net additional dwellings for previous year, reporting year and future years

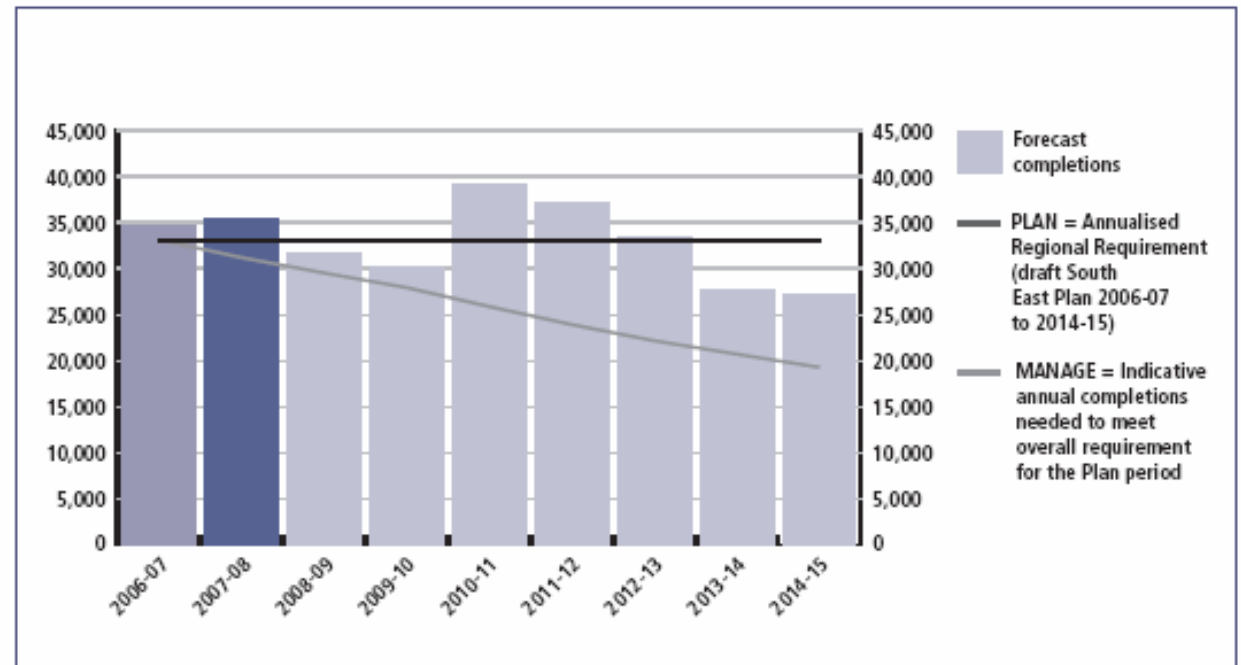


FIGURE 28: Housing trajectory, 2006-07 to 2014-15

Source: Local authority data supplied to the Regional Assembly.

Output/outcome indicators

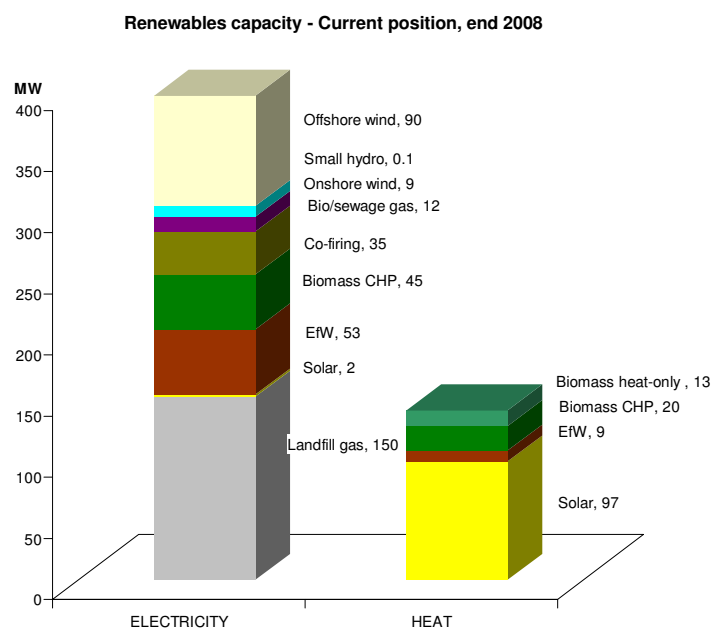
POLICY NRM13: REGIONAL RENEWABLE ENERGY TARGETS

The following minimum regional targets for electricity generation from renewable sources should be achieved by the development and use of all appropriate resources and technologies:

Year/ timescale	Installed Capacity (MW)	% Electricity Generation Capacity
2010	620	5.5
2016	895	8.0
2020	1,130	10.0
2026	1,750	16.0

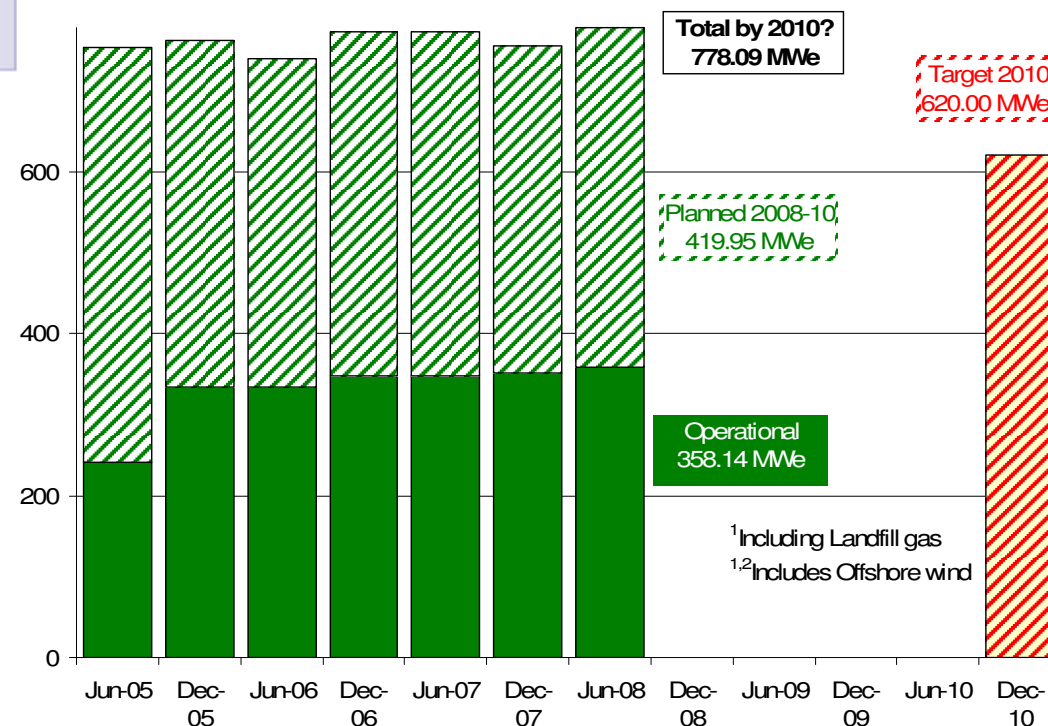
The renewable energy resources with the greatest potential for electricity generation are onshore and offshore wind, biomass, and solar. The renewable energy resources with the greatest potential for heat generation are solar and biomass.

Indicator: renewable energy capacity installed by type



SEE-Stats Renewable Electricity
South East of England

Installed capacity,¹ June 2008
Timeline with 2010 target²



Contextual indicators

Relate to real world variables on which a policy has only indirect influence or indeed no impact

POLICY NRM9: AIR QUALITY

Strategies, plans, programmes and planning proposals should contribute to sustaining the current downward trend in air pollution in the region. This will include seeking improvements in air quality so that there is a significant reduction in the number of days of medium and high air pollution by 2026...etc

Indicator: Days when air pollution is moderate or higher

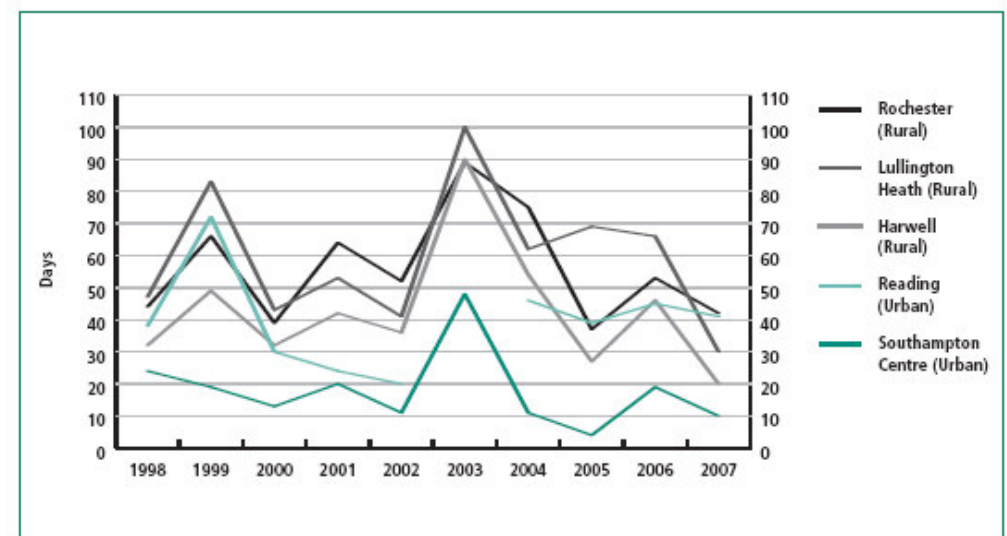


FIGURE 42: Number of days when air pollution was moderate or higher, 1998-2007

Source: DEFRA.

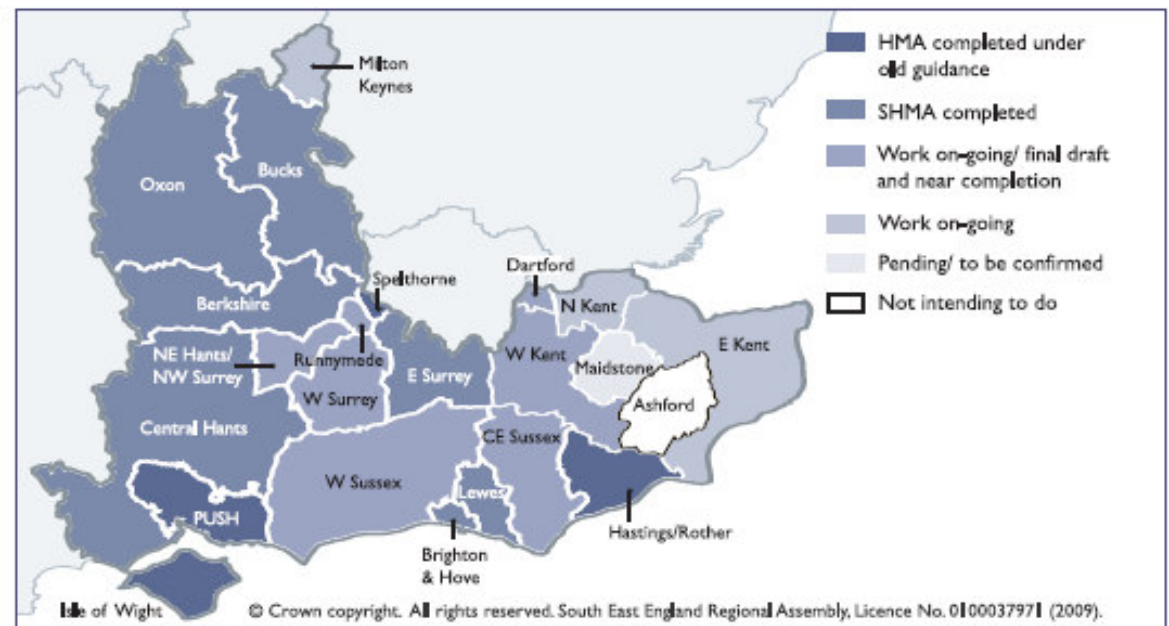
Process indicators

Only required where a process is necessary to reach a policy target

POLICY H4: TYPE AND SIZE OF NEW HOUSING

Local authorities should identify the full range of existing and future housing needs required in their areas working with adjoining local authorities where appropriate...etc

Indicator: Local authorities that have undertaken Strategic Housing Market Assessments (SHMAs) and Strategic Housing Land Area Assessments (SHLAAs)



MAP 23: Strategic Housing Market Assessments, 2009

Source: Local authorities.

Significant effects

**Comparison between predicted effects and actual effects measured during implementation.
From the Sustainability Appraisal process.**

**RSF Objective 19:
To conserve and enhance
the region's biodiversity**

Indicator: Condition of SSSIs

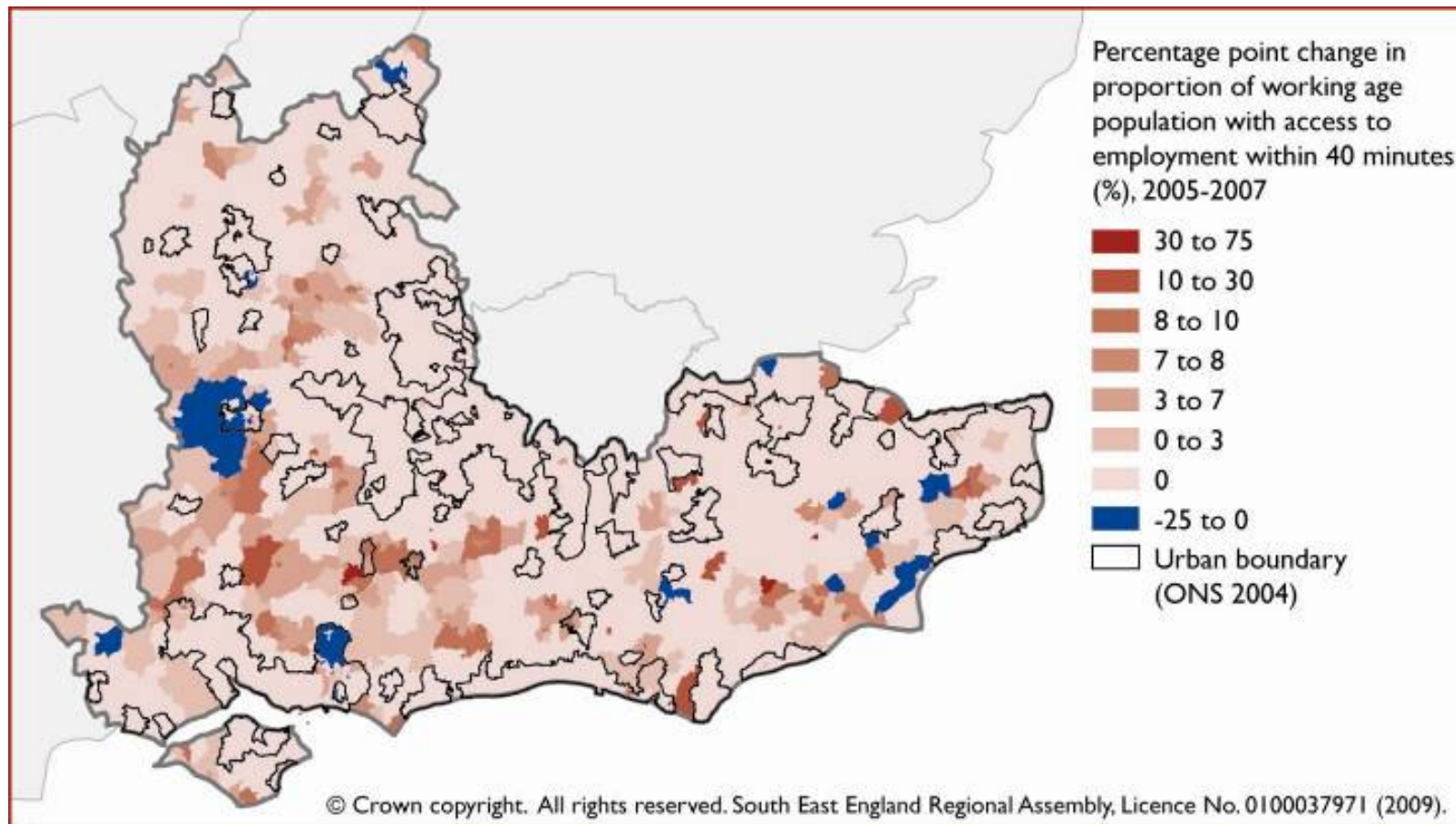
Year	In target condition (% meeting PSA target)
2002	72.7%
2003	65.0%
2004	67.4%
2005	70.4%
2006	79.6%
2007	80.2%
2008	85.7%

TABLE 2: SSSIs meeting PSA target condition, 2002-08

Source: English Nature.

Examples of types and presentation styles

Demonstrating change over time and spatially



Examples of types and presentation styles

Illustrating change over time and comparisons sub-regionally and nationally

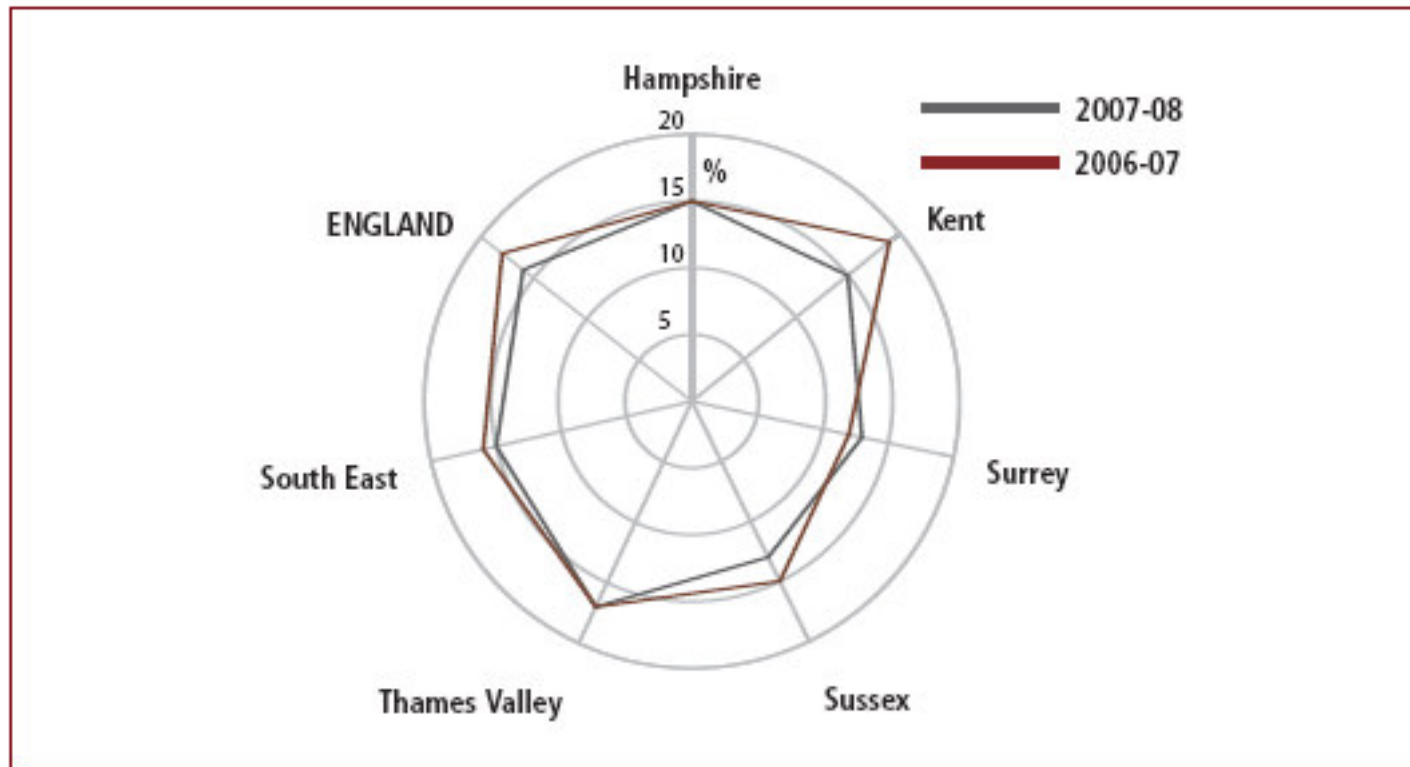


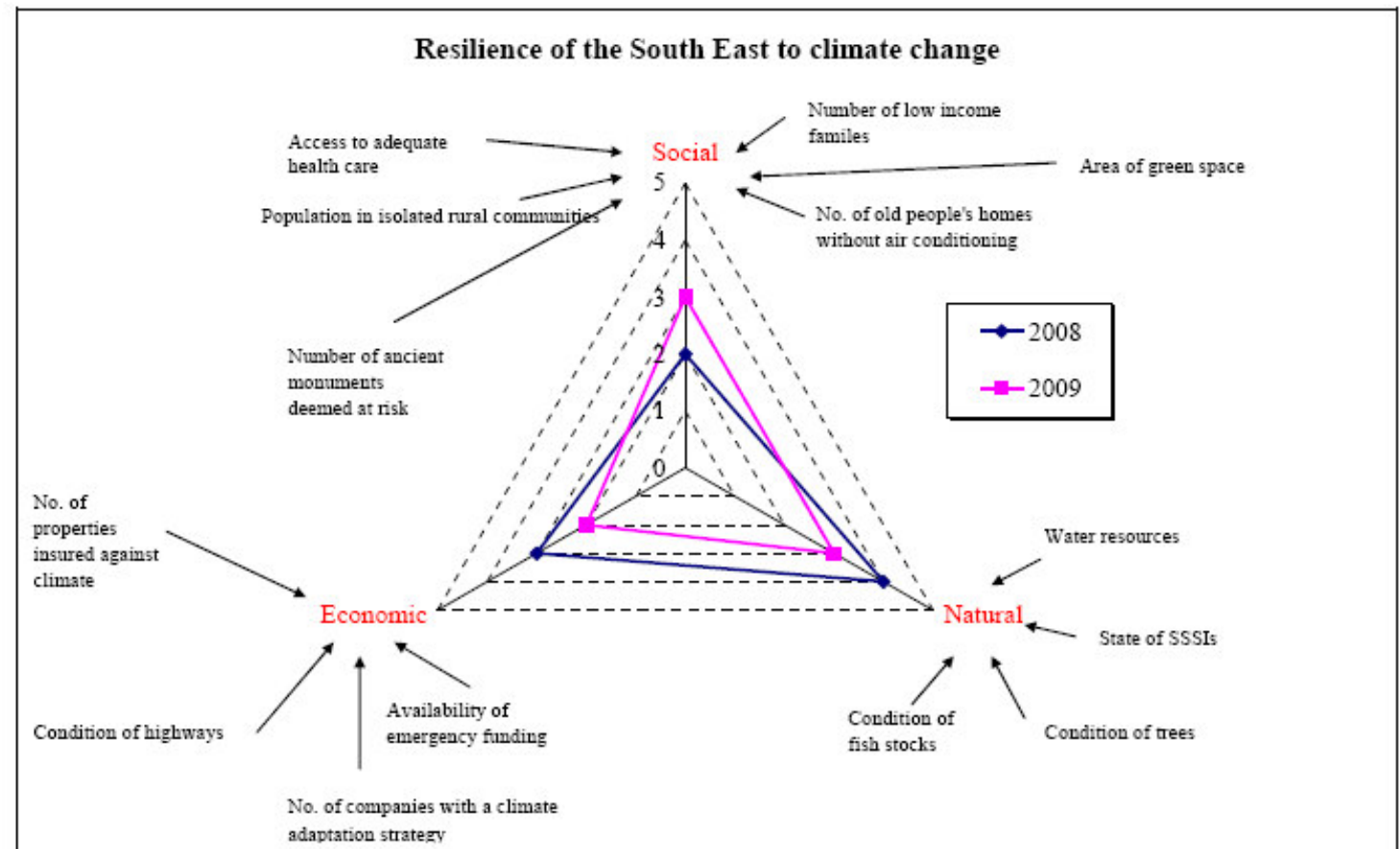
FIGURE 48: Level of perceived anti-social behaviour, 2006-07 and 2007-08

Source: British Crime Survey.

Examples of types and presentation styles

Compound - combining several indicators into one measure

A range of indicators are 'weighted' in the context of targets and brought together to provide one overall measure



Examples of types and presentation styles

WHAT IS ALREADY HAPPENING

Temperature (air and sea) BADG; FRS; MOHC; NOCS; SAMS; UKCIP

HIGH CONFIDENCE

- Marine air and sea surface temperatures (SST) have been rising at a similar rate to land air temperature, but with strong regional variations. Since the 1980s the rate of rise has been about 0.2–0.6 °C per decade.
- Warming has been faster in the English Channel and southern North Sea than within Scottish continental shelf waters.
- 2006 was the second-warmest year in UK coastal waters since records began in 1870; seven of the 10 warmest years have occurred in the last decade.
- Recent warming is also evident in waters of the upper 1,000 m of the North Atlantic.

Storms and waves ERI

HIGH CONFIDENCE

- A greater incidence of severe winds and larger mean wave heights in western and northern UK waters are being observed.

Sea level Defra; MOHC; POL

HIGH CONFIDENCE

- Global average sea level has risen during the 20th century by between 1 and 2 mm per year. The latest published satellite measurements suggest the rise was around 3 mm per year between 1993 and 2003.
- Smaller rates of rise are seen in Scotland compared to the south of England.
- Extreme water levels have also increased in the UK, most likely as a consequence of mean sea-level rise.

Acidification PML

HIGH CONFIDENCE

- The ocean is becoming more acidic as increasing atmospheric carbon dioxide (CO₂) is absorbed at the sea surface. Models and measurements suggest that surface pH has decreased by 0.1 pH unit since 1750.
- The surface ocean has absorbed nearly half of the increased CO₂ emissions due to burning of fossil fuels over the last 250 years, thus reducing the amount remaining in the atmosphere.

WHAT COULD HAPPEN

HIGH CONFIDENCE

- Climate change models indicate that SST will continue to rise in all waters around the UK coast, with stronger warming in the south-east (~0.15–0.4 °C per decade in the southern North Sea) than the north-west (~0.05–0.2 °C per decade at Rockall).

LOW CONFIDENCE

- Models predict overall fewer Atlantic depressions crossing to UK waters but there will be a greater number of deep depressions (intense storms) and associated increased wave heights.

LOW CONFIDENCE

- During the 21st century a global average sea-level rise of between 9 and 88 cm relative to 1990 has been predicted but there is uncertainty in ice-melt and its effect on the upper limit of sea-level rise; thermal expansion will account for the majority of the overall rise.
- The anticipated range of relative sea-level rise by the 2080s (relative to the 1961–1990 mean) is 20–80 cm in south-west England and 0–60 cm in Scotland.

MEDIUM CONFIDENCE

- Continued acidification will reduce the ability of the ocean to take up CO₂ from the atmosphere, which will have feedbacks to future climate change, further accelerating the accumulation of CO₂ in the atmosphere.
- Future increases in ocean acidity will have major negative impacts on some shell/skeleton-forming organisms within this century.



Marine Climate Change
Impacts Partnership






www.mccip.org.uk







Assessing indicators

Use a traffic light approach, relating colour to progress of indicator in the context of targets

-  Clear improvement
-  Little or no change
-  Clear deterioration
-  Insufficient or no comparable data

Indicator Number	Indicator	Plan Policy	RSF Indicator	PSA Target	Latest Data	Progress	Page
67	Properties at risk from flooding	N/A	15a		2008: 284,000		60
68	Number of planning permissions granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality	CC2, NRM4	15b		2007-08: 37 applications		60
69	Number of additional houses where flood risk has been reduced	N/A	15d		2007-08: 1,866		60
70	Rivers of good or fair chemical and biological water quality	NRM1, NRM2	24a	PSA28	2007: Biological: 98% Chemical: 97%		61
71	Population that are within water resource zones that are in deficit	NRM3	18a		2008-09: 19% or 1.5 million		62

Assessing policies

-  **Green:** Targets and objectives set out regionally or nationally have either been met or data indicates progression towards targets/objectives.
-  **Amber:** This can be for a number of reasons:
 - There is more than one indicator for the policy and they are moving in different directions
 - The policy needs close attention in the following monitoring year.
-  **Red:** The data indicates under-performance against targets and objectives set out regionally or nationally.
-  **Grey:** A traffic light for the policy cannot be determined because:
 - There is a lack of data available to fully assess performance
 - There is no detail available to explain the trends in data
 - Further research is required.

- Use all indicators relating to a policy to assess its success or otherwise
- Use a traffic light approach to denote progress

What makes a good indicator?

- Clarity and brevity
- Clear relationship to objectives, targets, policies and other indicators
- Inform action or review to policy
- Good quality of data and availability spatially and temporally

Some concluding messages

- Focus on key measures of success – less is sometimes more
- Use or be consistent with existing data sources where possible
- Data is key:
 - Good quality and reliable
 - Spatial and/or temporal scales
 - Consistent and comparable – between areas and over time
 - Replicable/repeatable – consistent definitions
 - Resonant – meaningful to audiences
 - Systems in place to collect and analyse
 - Sensitive to change



www.se-partnershipboard.org.uk