

Climate Change and Planning: after Stern

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The Stern Report

- *The Economics of Climate Change* (2007)
- Government-commissioned report
- Sets out the economic case for taking action on climate change
 - Damage of climate change: 5-20% GDP p.a.
 - Costs of strong mitigation: 1% GDP p.a.
- Stern says this is a conservative estimate



The significance of Stern

- Climate protection is relevant to economic policy objectives as well as environmental ones
- Provides a framework for responding to the distribution of impacts (+ve and –ve) across space, society and economic sectors
- Showed that overall impact justifies action



Relevance to UK and Norway

- UK is among top ten carbon emitters
 - 171 million tons of carbon p.a.
- Norway is among top ten carbon emitters per capita
 - 11-12 tons of carbon per person p.a.
 - (update on figure in paper)
 - UK figure is 2.8 tons per person p.a.



Stern's view on planning

1. Setting performance standards for new buildings and developments
Code for Sustainable Homes
2. Proposing design standards for new developments
Merton Rule
3. Planning for less energy intensive society
UK Ecotowns

Code for Sustainable Homes



- The Code measures the sustainability of a new home against categories of sustainable design, rating the 'whole home' as a complete package. The Code uses a 1 to 6 star rating system to communicate the overall sustainability performance of a new home.
- The Code sets minimum standards for energy and water use at each level with discretionary standards for other elements.



Linked to Zero Carbon Building targets

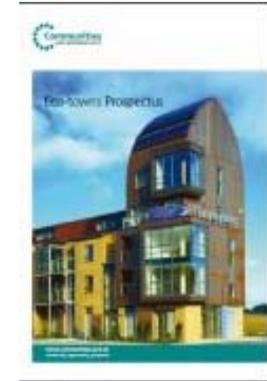
- UK Government aiming for:
 - All new housebuilding to be zero-carbon by 2016 using CSH and building control
 - All new non-domestic development to be zero-carbon by 2019
 - Code for Sustainable Non-Domestic Buildings
- Problems raised by economic downturn



Merton Rule

- Following the publication of Planning Policy Statement 22 on Renewable Energy in 2004, the London Borough of Merton was the first to formalise the government's renewable energy targets in its adopted Unitary Development Plan, setting the target for the use of onsite renewable energy to reduce annual CO2 emissions for all new major developments in the borough by 10%.
- Government now encourages widespread use of the Rule.

Ecotowns



The key features we want to achieve are:

- (i) places with a separate and distinct identity but good links to surrounding towns and cities ...
- (ii) the development as a whole to achieve zero carbon and to be an exemplar in at least one area ...
- (iii) a good range of facilities within the town including a secondary school, shopping, business space and leisure;
- (iv) between 30 and 50 per cent affordable housing with a good mix of tenures and size of homes ...
- (v) a delivery organisation to manage the town and its development and provide support for people, businesses and community services.



Other priorities for planning (1)

Improving the carbon efficiency of the existing stock

- Turnover in UK housing stock: 1-2% p.a.
- Low levels of current insulation
- Low take-up of grant schemes
- 95% of home owners think that the heating of their own home is currently effective
- Non-domestic stock also an issue



Other priorities for planning (2)

Focussing on the use of the built environment

- Technology and built form does not determine behaviour
- Need to understand economic incentives
- Need to understand cultural influences on behaviour



Other priorities for planning (3)

Considering the role of the rural environment

- Agriculture can be a major source of greenhouse gases
- Often outside the remit of the planning system



Other priorities for planning (4)

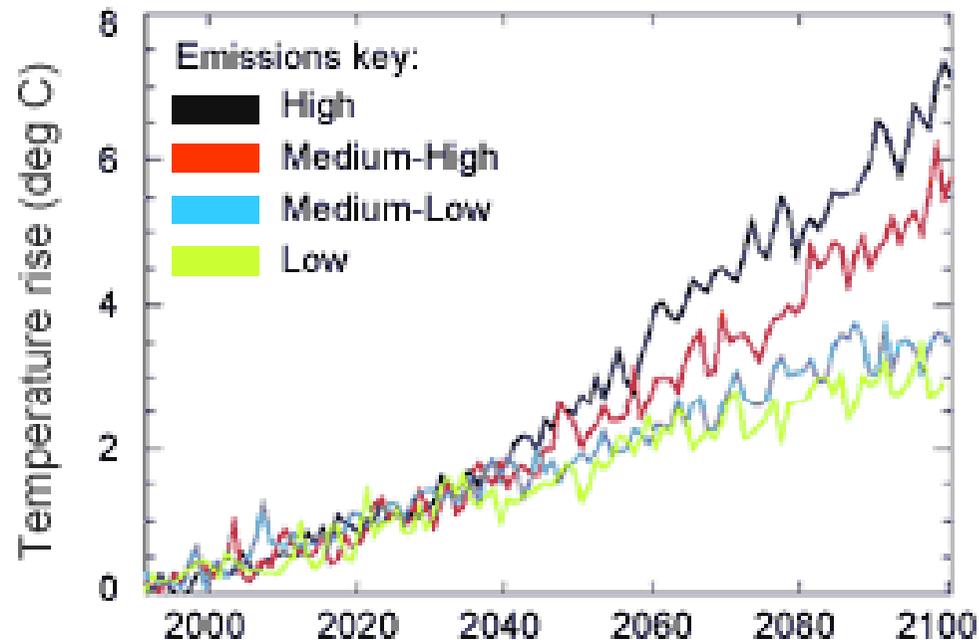
Planning energy and transport infrastructure

- Public transport and decentralised energy systems can influence behaviour and carbon emissions
- Need to be planned alongside urban growth

Other priorities for planning (5)

The importance of adaptation

Projected annual mean temperature rise, 2000-2100  Met Office





Scoping the N. European impacts

■ Positive impacts

- Higher agricultural yields
- Lower winter mortality
- Lower heating requirements
- Potential tourism boost

■ Negative impacts

- Loss of biodiversity
- Loss of open ground
- Impact on local livelihoods from rapid change
- Snow and ice melt
- Flooding



Planning for adaptation

- Anticipating flood risks
- Building resilience for storm damage
- Planning for water scarcity (in UK)
- Considering the impacts on soil stability (in UK)



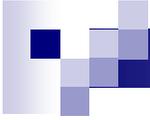
8 roles for the planning system

1. Set performance standards for new buildings
2. Suggests new designs for urban developments
3. Plan for lower energy intensity living
4. Improved carbon efficiency of built stock
5. Promote different use of the built environment
6. Consider rural land uses
7. Plan energy and transport infrastructure alongside growth
8. Plan for adaptation



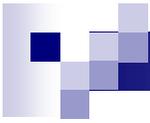
The priorities for planning?

- What should be the priorities?
- What will give the most carbon savings?
- Where can carbon savings be achieved first?
- This will vary between, say, UK and Norway
- Better to clarify priorities than pretend to be doing everything all the time.



Does the planning system have the power to fulfil these roles?

- **WARNING!** What follows is a very generic analysis
- A **variety** of different planning tools can be identified
- These vary in terms of their general **power** and the **impact** that they have in achieving **specific goals**

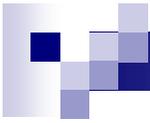


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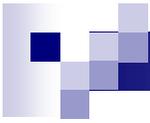


Considering three planning roles

- Influencing new developments
- Influencing transport patterns and travel behaviour
- Influencing the use of the built environment

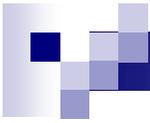


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IMPACT OF PLANNING TOOLS ON TRANSPORT SYSTEMS AND BEHAVIOUR → → → →

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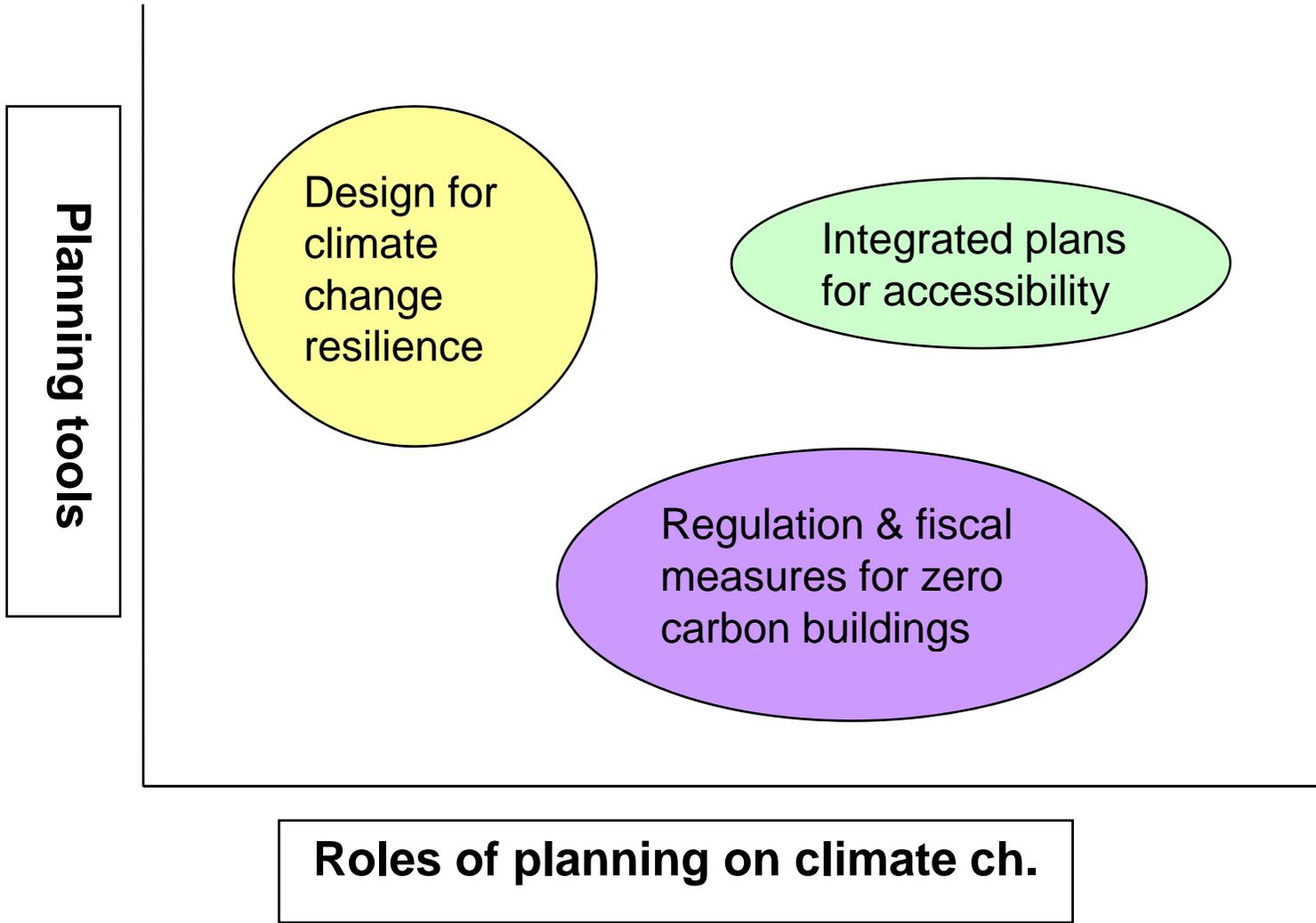
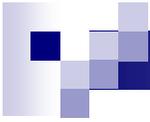


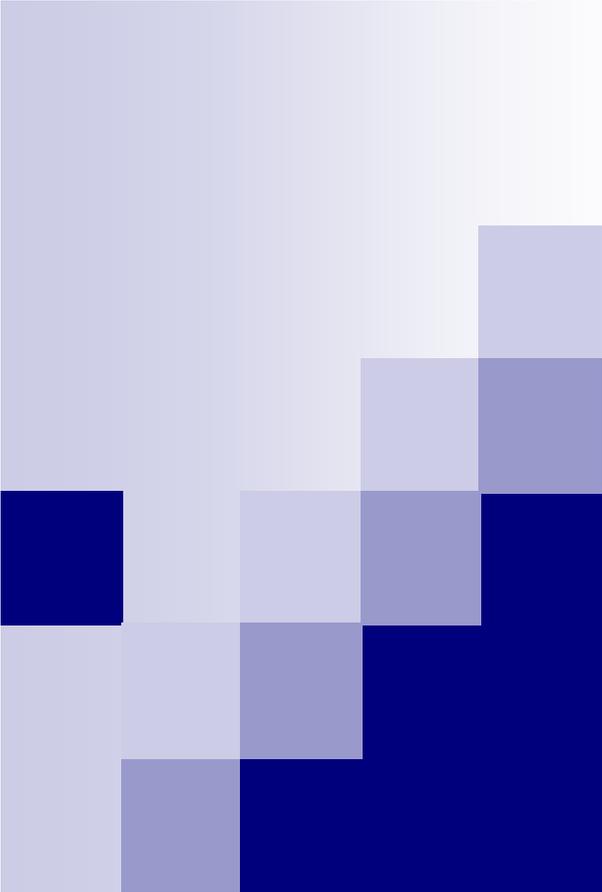
IMPACT OF PLANNING TOOLS ON USE OF BUILT ENVIRONMENT → → → →												
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In conclusion:

- Tackling the climate change agenda through planning will require
 - Clarifying the priorities for planning within this agenda
 - Identifying the most appropriate planning tools
 - Building packages of tools to fulfil the identified goals





Thank you

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