

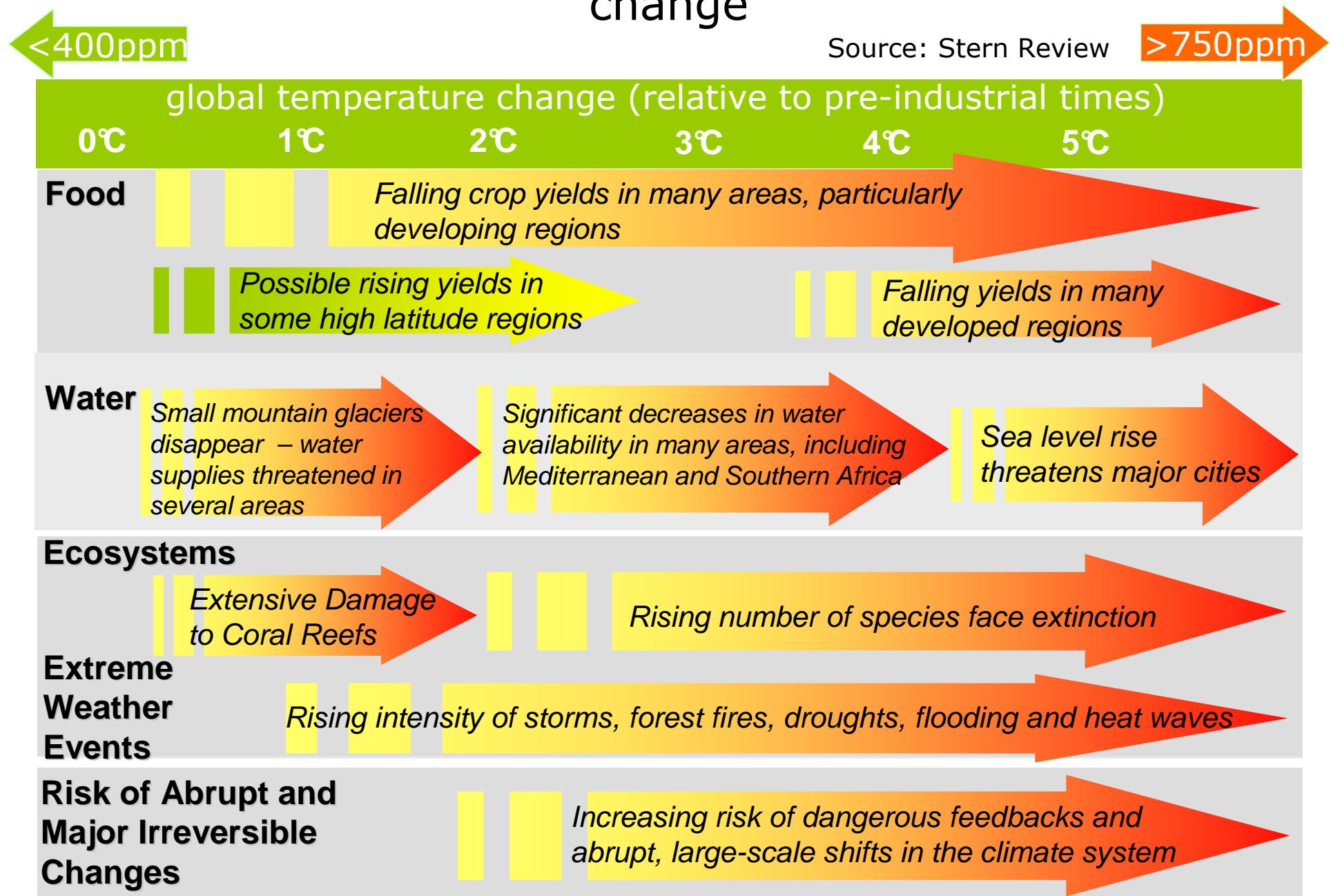
# Moving on from Mitigation? Local solutions to Climate Change

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# Structure of presentation

- Review of what is being done
- Assessment of how effective these strategies are likely to be
- Preconditions for adaptive/ effective action
- Comparative analysis of approaches in Europe and the US
- Policy recommendations for local, regional and international institutions
- Recommendations for future international research

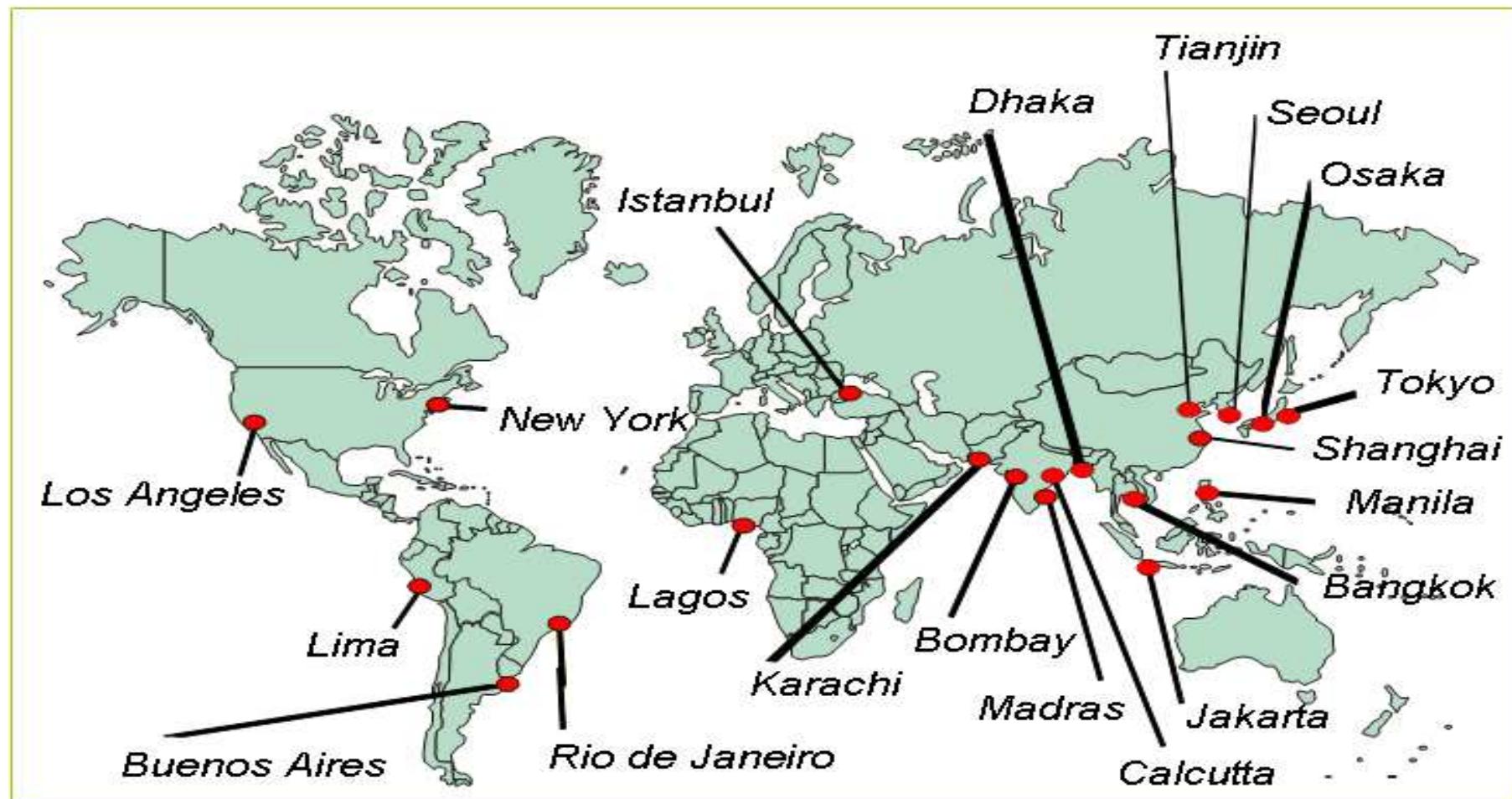
# Rising CO<sub>2</sub> means greater risk of dangerous climate change



# Context

- Growing scientific evidence of the excessive exploitation of the earth's biological and physical resources (the 'life-support' systems: air, soils, seas and genetic resources)
- Realities of global corporate business restructuring; 'boom and bust' investment
- Growing acceptance that irreversible environmental disasters pose a palpable threat, particularly to developing countries in Asia and Africa
- International discussions (Rio, Kyoto, etc) and responses by governments setting targets, Local Agenda 21
- Global inequalities and local political conflicts in reconciling economic and ecological objectives

# Coastal Megacities (>8 million people) UN Forecast for 2010



Taken from Nicholls (1995)

NICHOLLS, R.J. 1995. *Geojournal*, 37(3), 369-379

**'The world stands in imminent peril', James Hansen. Instead of sea levels rising by about 40 centimetres, as the IPCC predicts in one of its computer forecasts, the true rise might be as great as several metres by 2100.** [http://pubs.giss.nasa.gov/abstracts/2007/Hansen\\_etal\\_2.html](http://pubs.giss.nasa.gov/abstracts/2007/Hansen_etal_2.html)

# Counting the global hectares of consumption



# Carbon management

## How emissions trading works

Emissions trading involves buying and selling emissions "allowances", measured in units equivalent to tonnes of carbon dioxide. Every year, each participant is allocated a set number of allowances, which may be traded within the community. At the end of each year, the participant must report their annual emissions. If there are insufficient allowances in that participant's account to cover their emissions, then they are liable to financial penalties.

If a participant reduces their emissions below their allowance, they can keep the surplus for use in future years or sell it. Alternatively, they can buy extra allowances to cover any shortfall. Emissions trading therefore provides an incentive for participants to reduce their emissions since they can sell the surplus to others and make a profit.

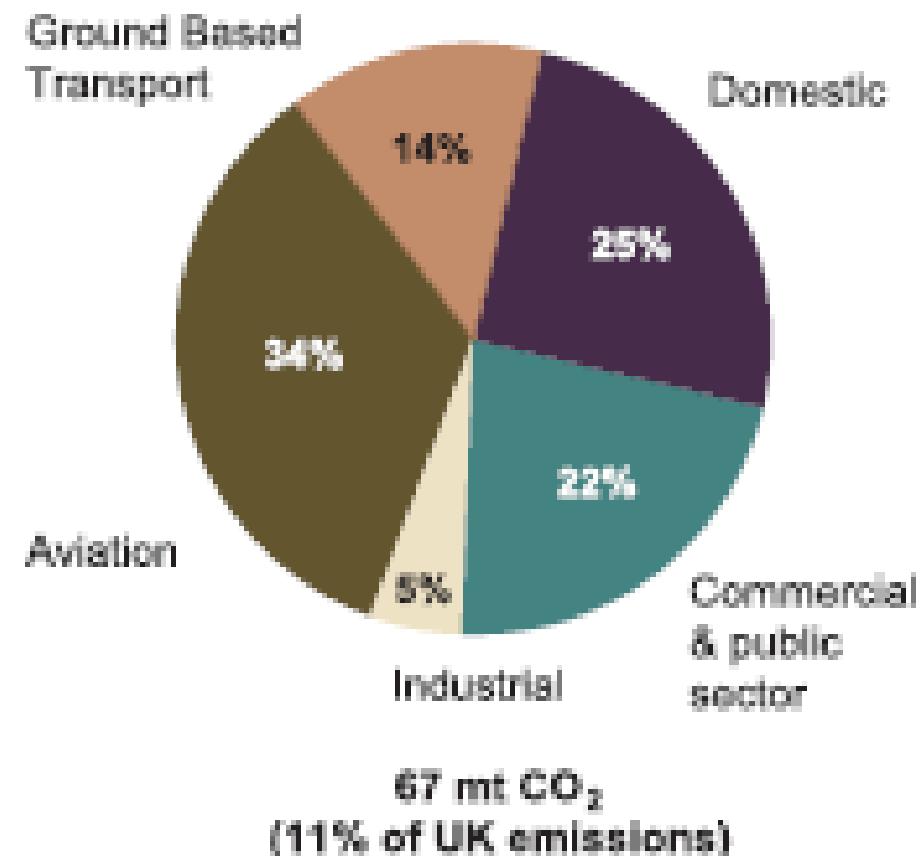


Source: UK Sustainable Development Strategy (2004: 84)

# What is being done?

- Implementing territorial governance systems for reducing GHG emissions
  - International concordats coordinated by the UNFCCC [Kyoto onwards]
  - Measurement of carbon inventories and labelling of products
  - EU Emissions Trading Scheme since 2004/5
  - National indicators and targets
- National and local strategies and action plans for climate change adaptation
  - Awareness raising of human effects on climate change
  - Fiscal measures, e.g. UK Climate Change Levy - carbon tax on energy use (lighting, heating and power in non-domestic sectors)
  - Piecemeal approach to adaptation measures
    - Pilot projects: significant funding by the EU
    - Overcoming fragmentation inherent in sectoral management approach
- Focus on cost-effectiveness of actions
  - Best value in procurement, estate management and operations, and through the development plan process.

# London 2006 CO<sub>2</sub>



## 2008 Plan CO<sub>2</sub> reduction targets

### *Policy 4A.2 Mitigating climate change*

The Mayor will work towards the long-term reduction of carbon dioxide emissions by 60 per cent by 2050. The Mayor will and boroughs and other agencies should seek to achieve the following minimum reduction targets for London against a 1990 base; these will be monitored and kept under review:

- 15% by 2010
- 20% by 2015
- 25% by 2020
- 30% by 2025.

# Business focus in the UK

- Manchester –mini Stern report > costs of carbon management
- Transition Towns (20- 30 towns)
- Sheffield report
- Local Government emissions trading scheme for LA businesses:
  - 30% reduction by 2025 on 2005 emissions
  - 60% reduction by 2050
- XX



## Practical tips on carbon reduction from leaders in climate change action

Courtyard Marriott Downtown, **Chicago** – 25 & 26 September, 2007

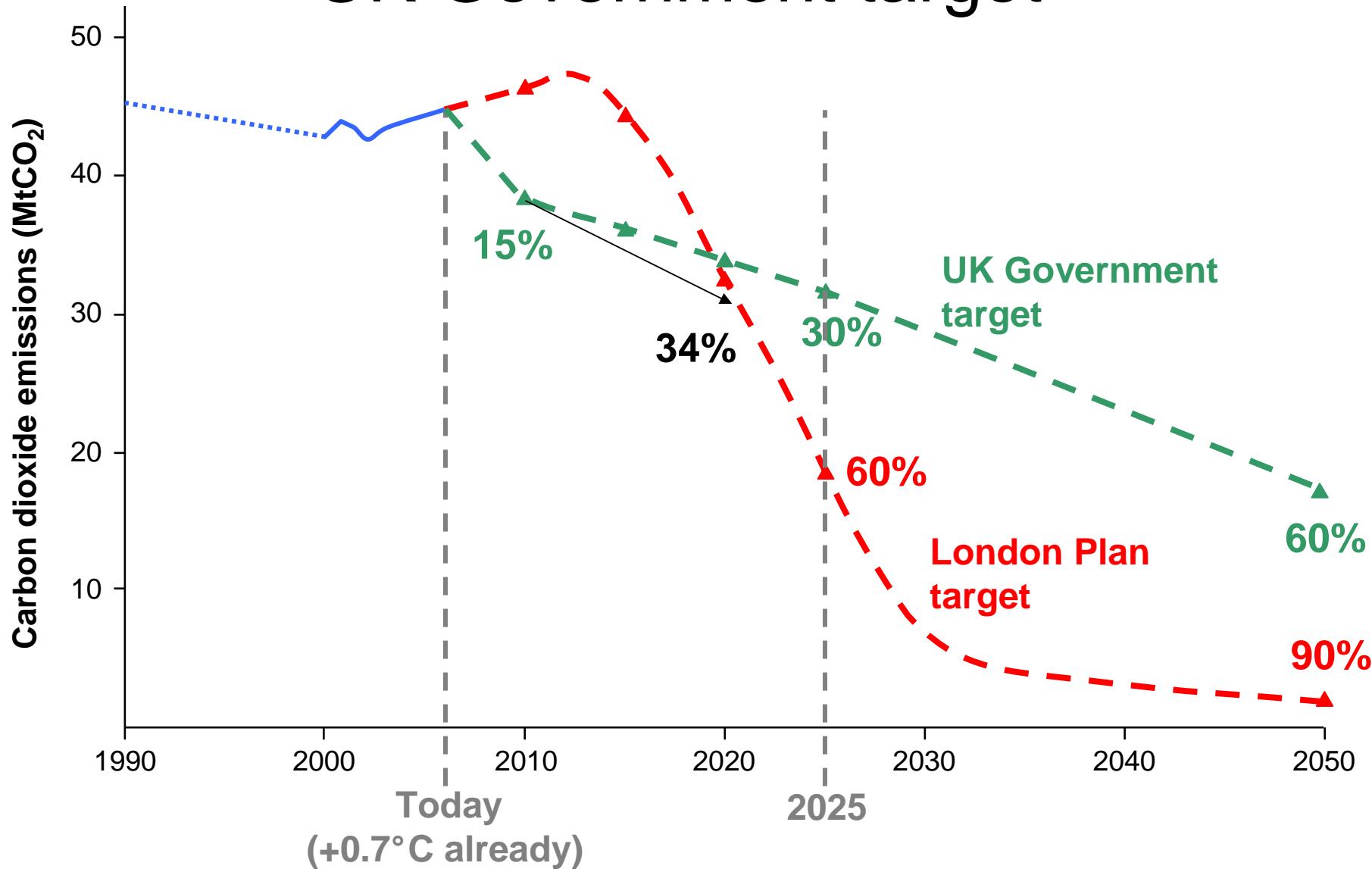
- The US Climate Action Partnership (USCAP) ([www.us-cap.org](http://www.us-cap.org)) is calling on the Bush administration to quickly enact strong national legislation to require significant reductions of greenhouse gas emissions. It now includes 29 member organizations including Caterpillar, BP America, PG&E Corporation and World Resources Institute.
- Representatives of these organizations will be speaking at our upcoming event, taking place at the Courtyard Marriott Downtown Chicago. **They will talk about why national carbon reduction targets make strong business sense** and how the current absence of federal action poses a risk to US companies' ability to compete globally in the future.
- Find how you and your business can benefit by joining them in Chicago.



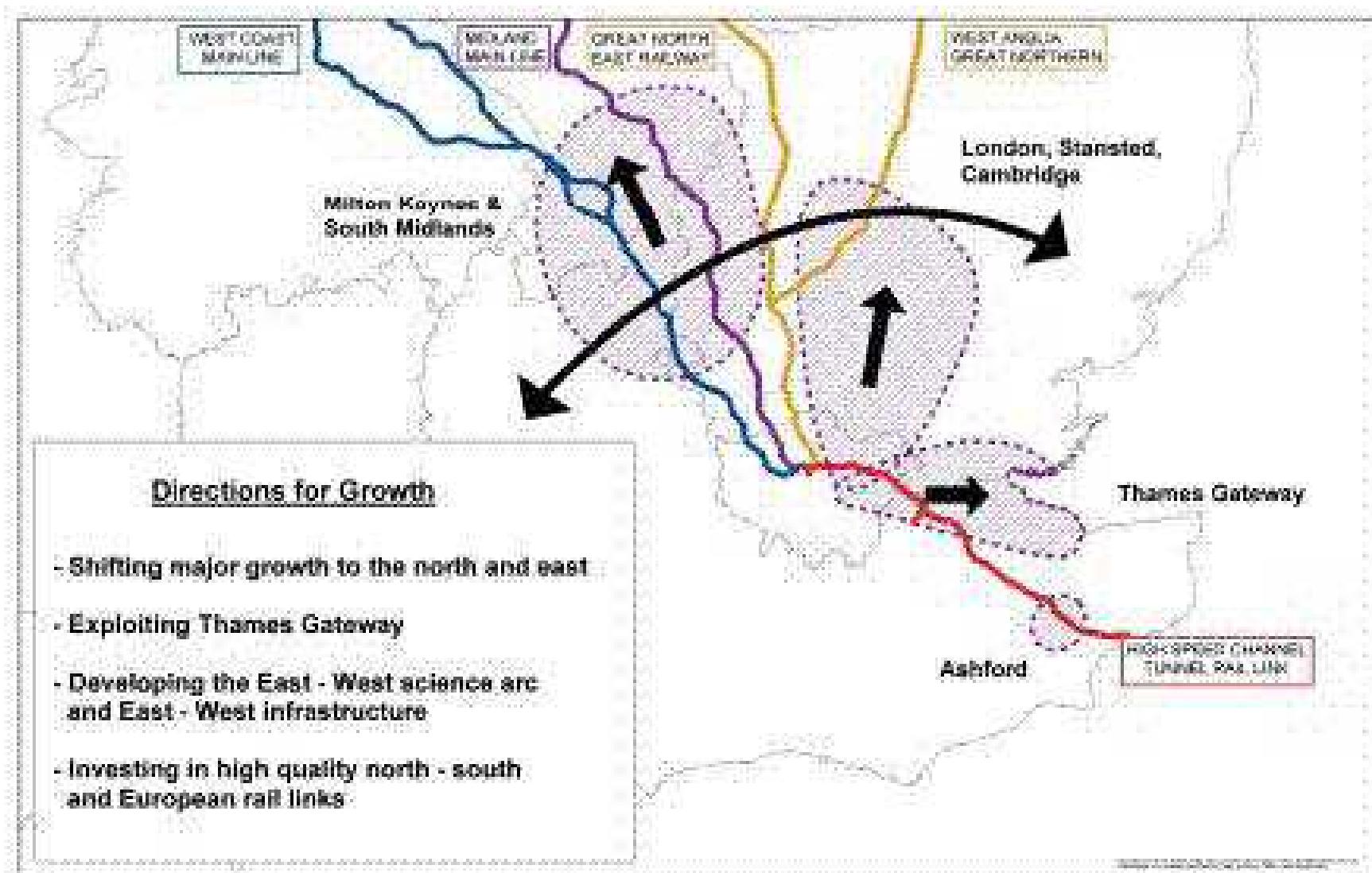
# Is this the beginning of a radical shift in regulation?

- It is changing the way we think about policy options
  - Stimulated demand for information, techniques, studies
  - Carbon control rationale of state
  - Different ways of seeing cities and regions
  - Narrowing of policy generation to the competitiveness of industry?
- Climate change strategies have had little impact on land use planning acts (Haanpää and Peltonen 2007)
- Knowledge does not equate with awareness (Haanpää 2008)
- Awareness does not turn into adaptive action
  - Little impact so far on strategy and scheme appraisal practices
  - Institutional constraints, including lack of legal guidelines, lack of funding, lack of political interest (Hull and Tricker, 2005; Haanpää and Peltonen 2007)

# London Plan target more ambitious than UK Government target

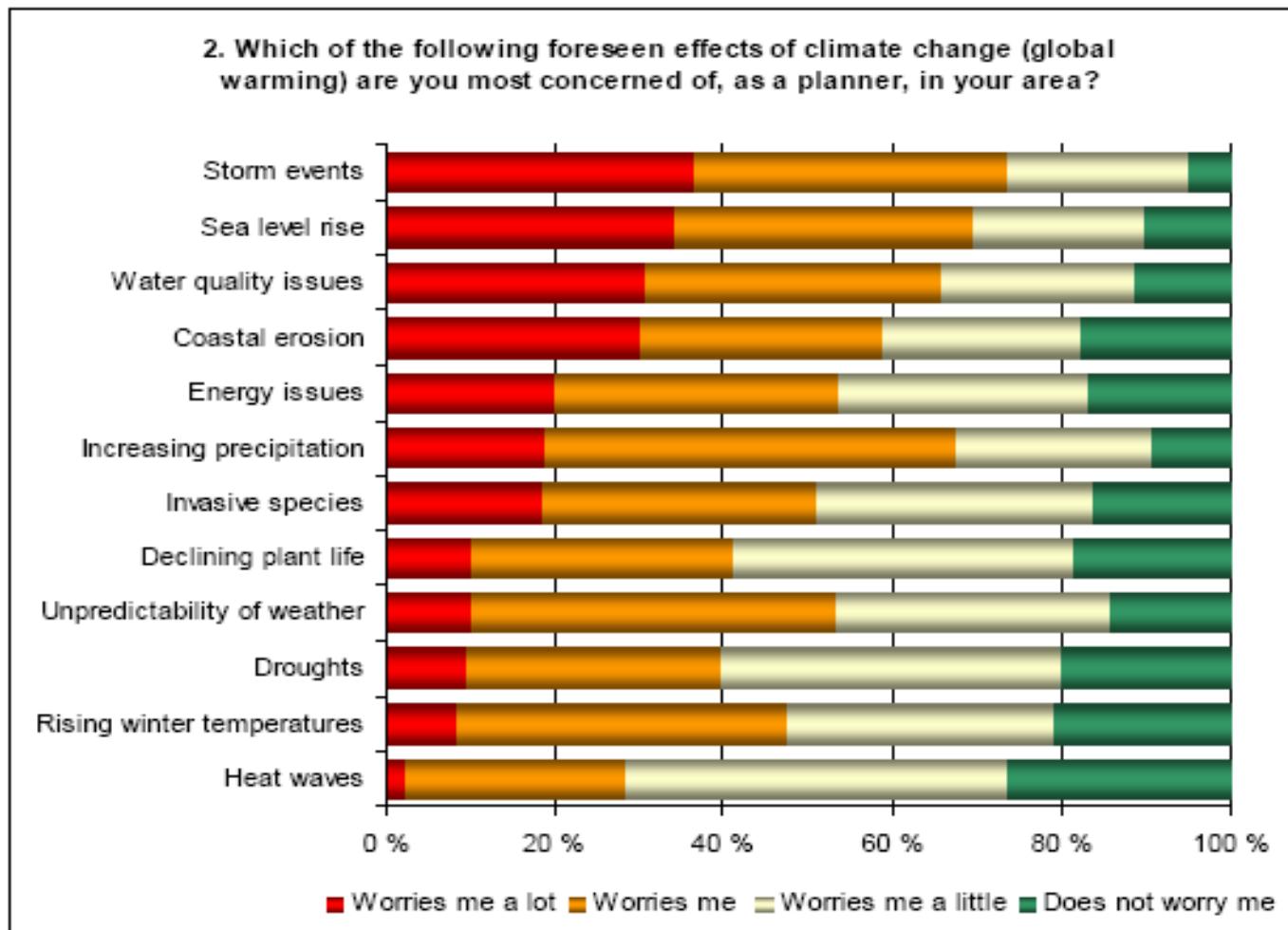


# Growth Areas in South East England



Source: ODPM (2003) Creating Sustainable Communities. Making it happen.

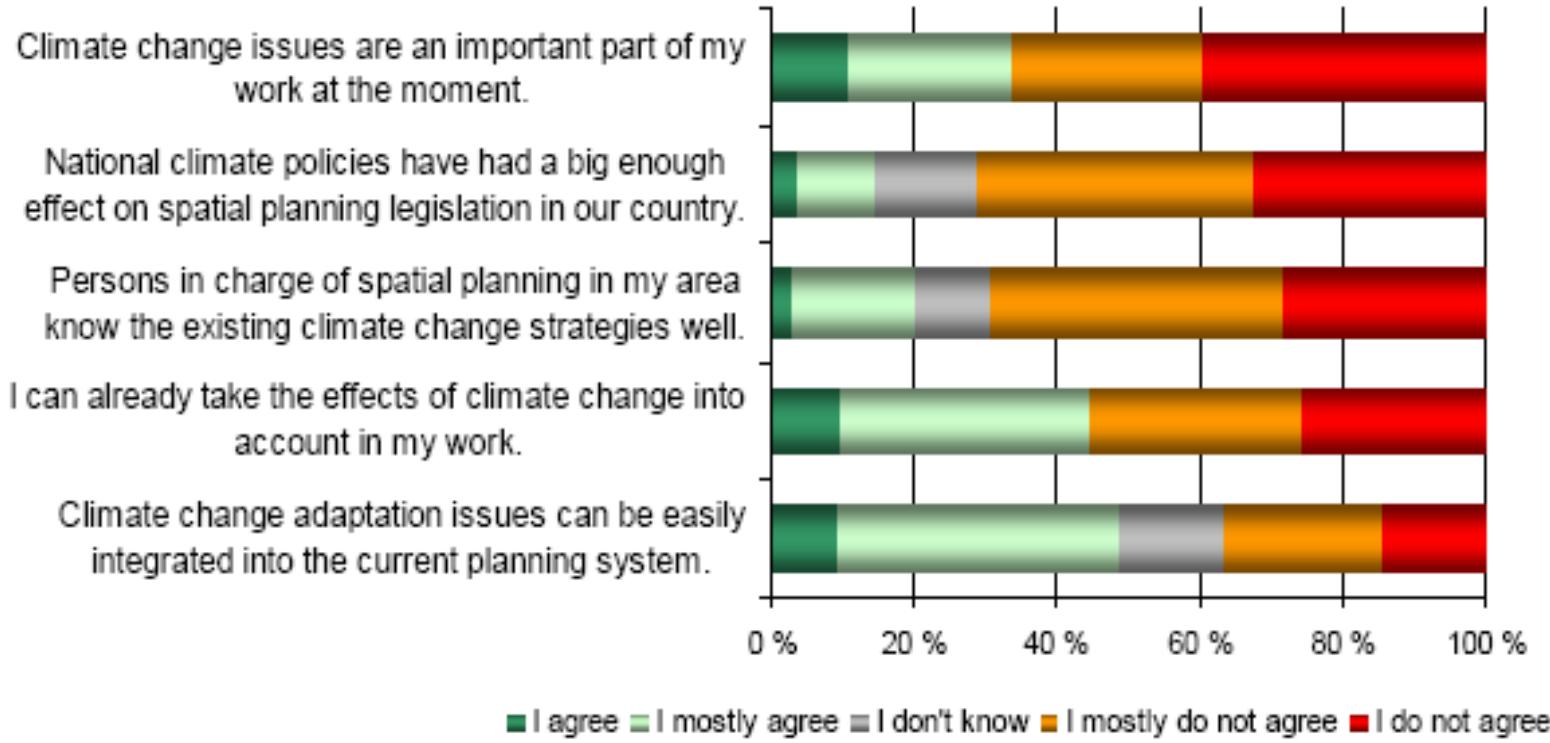
# Planners' perceptions of vulnerability



Source: Haanpää, S., (2008:5)

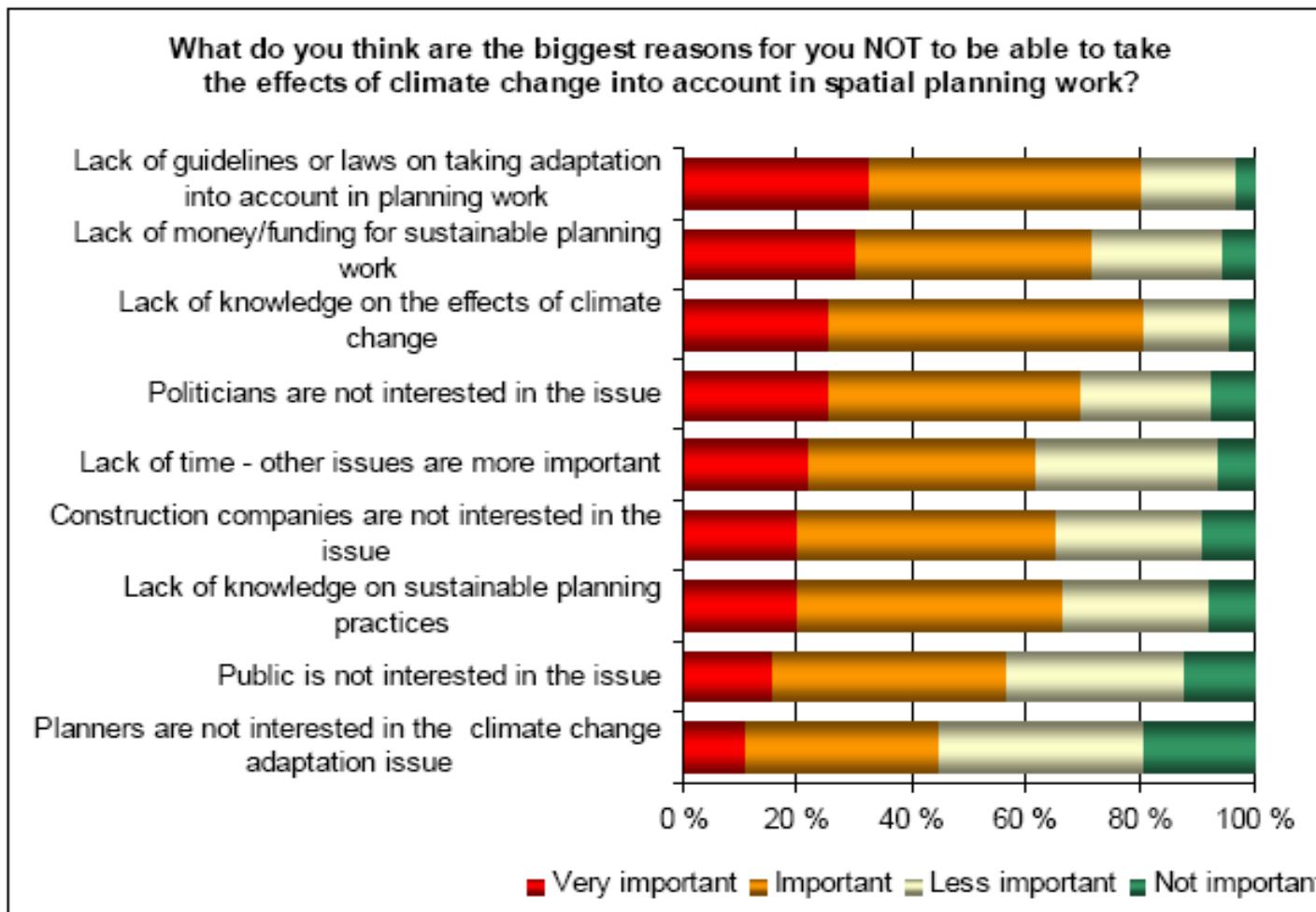
# Local planners' readiness to respond

## 7. What is your opinion on the following statements on tools and capabilities for adaptation?



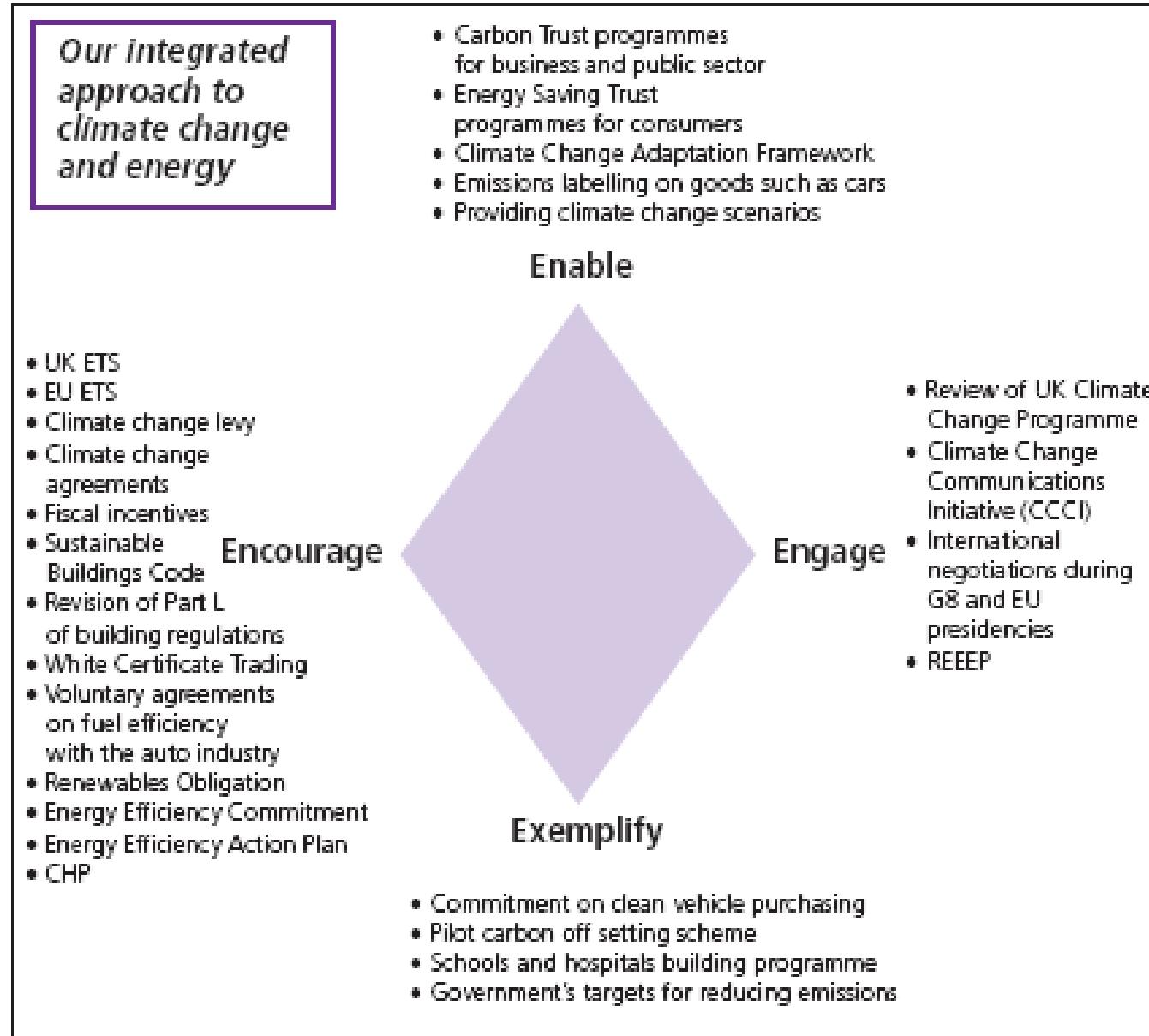
Source: Haanpää, S., (2008:6)

# Local planners' barriers to action



Source: Haanpää, S., (2008:7)

# Integrated Approaches



Source: UK Sustainable Development Strategy, 2004: 94

An integrated approach needs a more stable and more reliable regulatory environment.

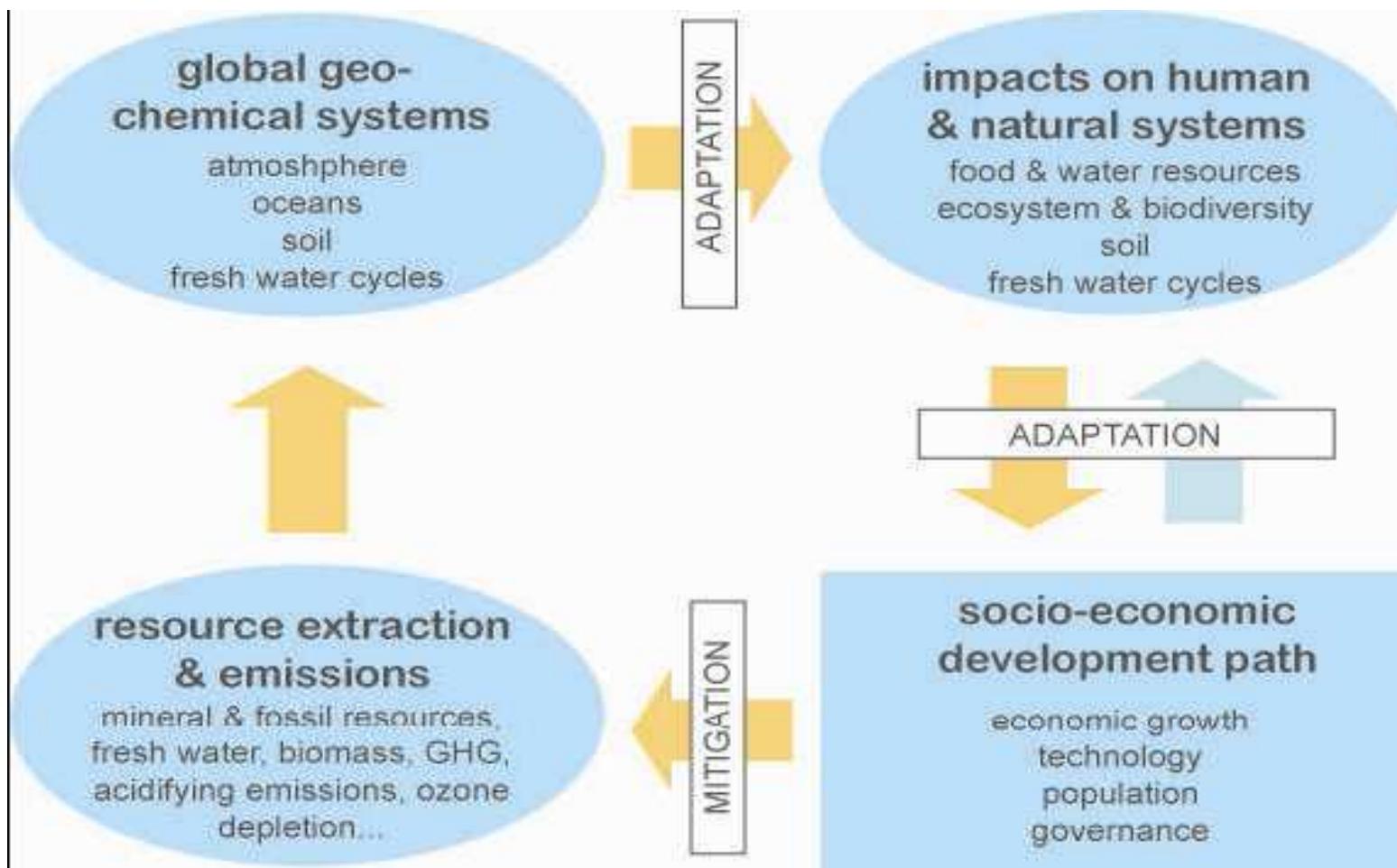
- *The renewed Lisbon Strategy (2005) and the European strategy for sustainability do not contradict but complement one another. We want to and must get ahead of the global competition if we want to reliably secure our European way of life.*
- *The way to do this is to produce top quality on a broad front: in technology and in standards — we need the best, safest and most ecologically friendly solutions everywhere. More growth can only be sustainable growth. More and better jobs are a necessity in our time. Otherwise we will fail to do our duty towards our citizens, as job safety is the key social issue of our time. (Günter Verheugen, Vice-President of the EC responsible for Enterprise and Industry, 2006)*

What type of growth?

**DUBAI'SATION**

Source: Aniss

# Ecosystem interaction



# 21<sup>st</sup> Century

Hazard

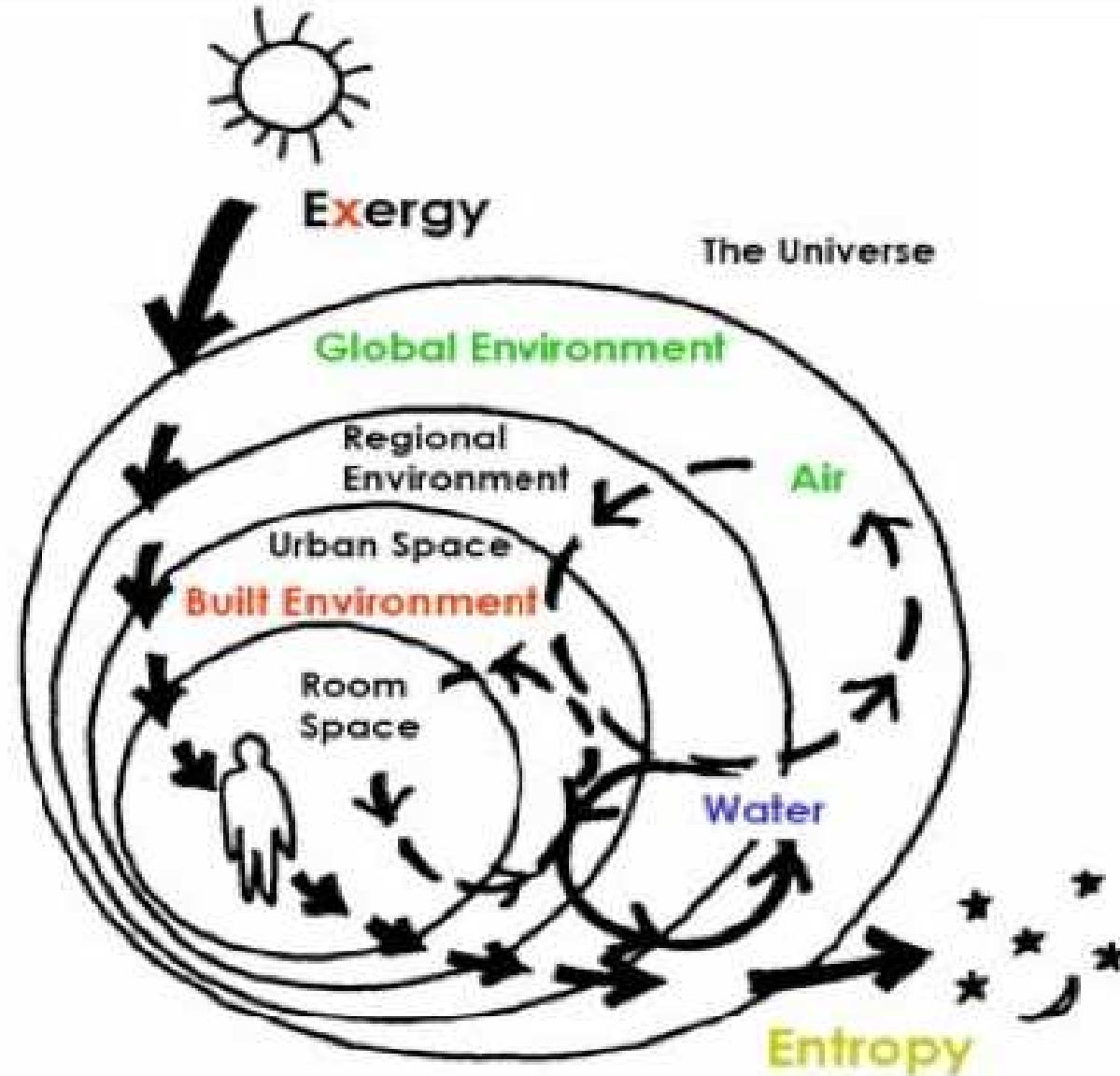
Vulnerability

**RISK**

Exposure

Source: AP

# What would a progressive climate change policy look like?



SOURCE: Van Timmeren, 2007

# Achievement of a low emission and low vulnerability development pathway

- Dissemination of trustworthy and easy to understand information through public media and the internet
- Principles of resilience incorporated into strategies, plans and appraisal processes
- Benchmarking progress
- Structures that support flexible and continuous change processes, are open, and are continuously capable of absorbing corrections
- Collaboration on good practice and avoiding mal-adaptation

# Role of government

- Using the tools of govt (legal, fiscal incentives, etc).
- Using the science
- Providing checklists of good practice
- Setting environmental quality targets as these relate to different media of the environment (e.g. air, freshwater)
- Setting indicators (i.e. summary indexes of environmental quality and policy performance)
- Introducing and refining regulatory mechanisms such as pollution and planning controls, market-based economic instruments
- Monitoring and performance audits