

# **Research into climate change activities in Oxfordshire and the need for a county-wide strategy**

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# This presentation...

- The project
- Research findings
- Is there a need for a strategy?

# Why now?



- Sustainable Community Strategy
  - Environment and Climate Change a major theme of Oxfordshire's new draft SCS
- Local Area Agreement 2
  - *PSA 27 Lead the global effort to avoid dangerous climate change*
    - **NI 185 CO2 reduction from Local Authority operations**
    - NI 186 Per capita CO2 emissions in the LA area
    - **NI 188 Adapting to climate change**
- Local Development Frameworks
  - Work by Planning Policy Officers on areas of mutual interest e.g. renewables

# The project



An information mapping exercise on climate change activities in Oxfordshire

The potential role of a county-wide strategy

- ⇒ Short review, started 29<sup>th</sup> May
- ⇒ 15 meetings and phone discussions, mainly with members of Climate Change group
- ⇒ Additional evidence (MORI, Citizen's panel, existing reports and presentations)
- ➔ **Presenting findings and options**

# Who was interviewed?

- Oxfordshire County Council
- Cherwell District Council
- Oxford City Council
- South Oxfordshire District Council
- Vale of White Horse District Council
- West Oxfordshire District Council
- Oxfordshire Rural Community Council
- ClimateXchange
- Oxfordshire Economic Partnership
- Northmoor Trust
- UK Climate Impacts Programme
- Business Resource Efficiency & Waste programme

# Initial observations (1)

## Communication is hard

- Climate change is a phenomenally difficult subject to communicate
  - Hugely broad topic
  - Evolving regulation & targets at all levels (international to local)
  - Definitions are unclear and the future is uncertain
  - The science and technology options are complex
  - Media very interested, especially in the tensions
- May be obvious... but
  - ⇒ this means it is **a challenge for partners to talk to each other** (let alone anyone else)

## Initial observations (2)

# Information mapping is a big and ongoing project

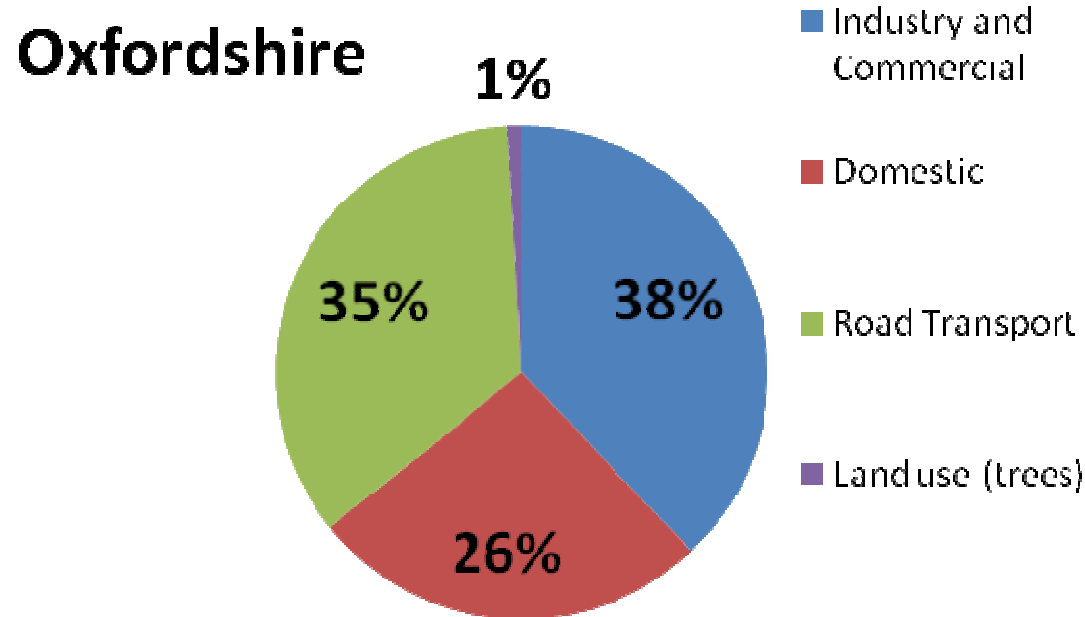
- A full inventory of Climate Change activities may not be achievable
- Also worth thinking about how much (and what) information actually needs to be recorded
  - Crucial to avoid information overload
  - But everyone needs to feel in touch with the important issues and activities
- A lot of discussion on which areas/issues need partnership work

# First advice was...

- “Start with the data”

# Oxfordshire's CO<sub>2</sub> emissions

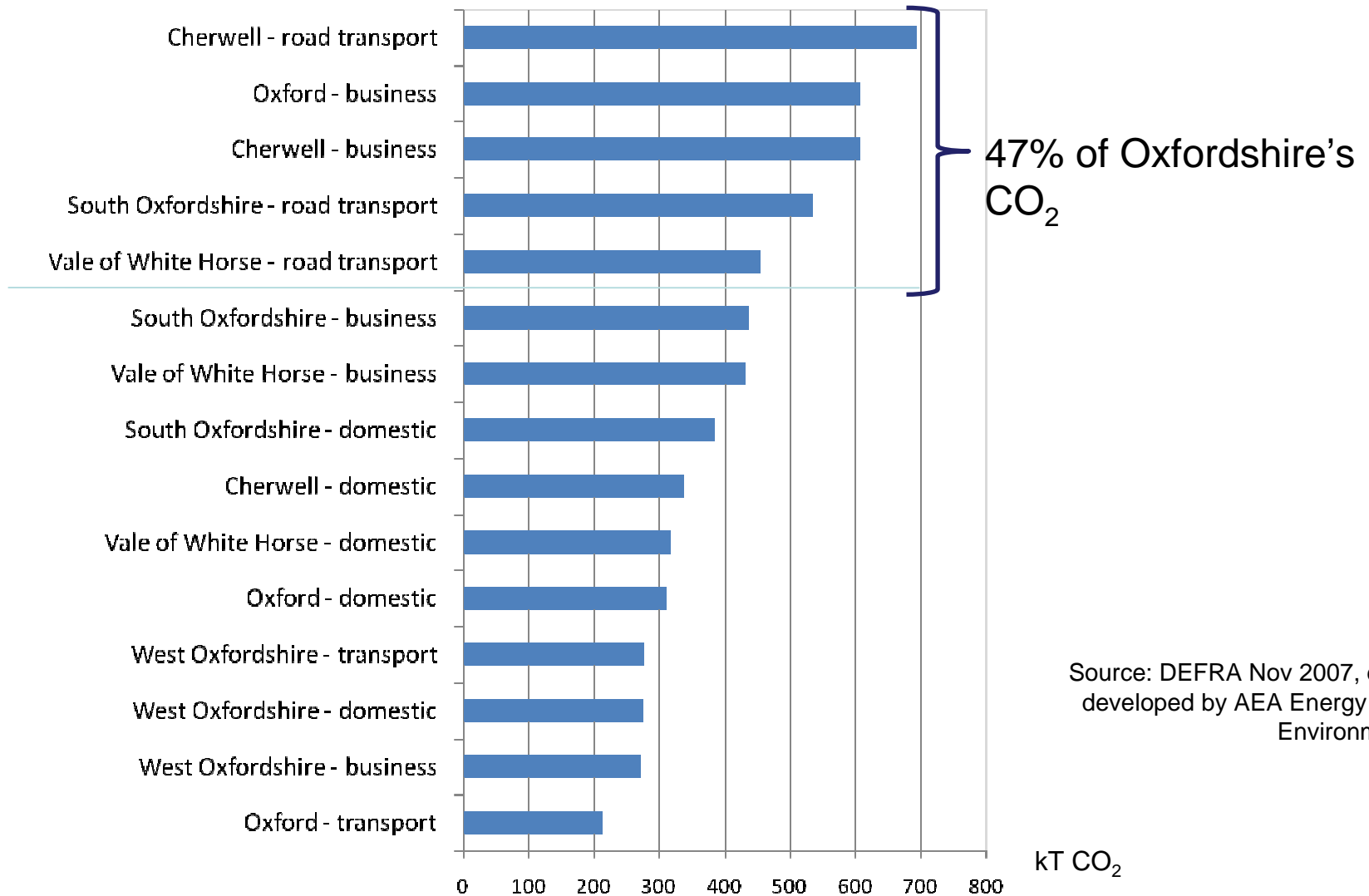
Local and Regional Estimates Carbon Emissions by  
End User, Summary 2005



6,202 kT of CO<sub>2</sub> in 2005

# Main contributors

## Local and Regional Estimates Carbon Emissions by End User



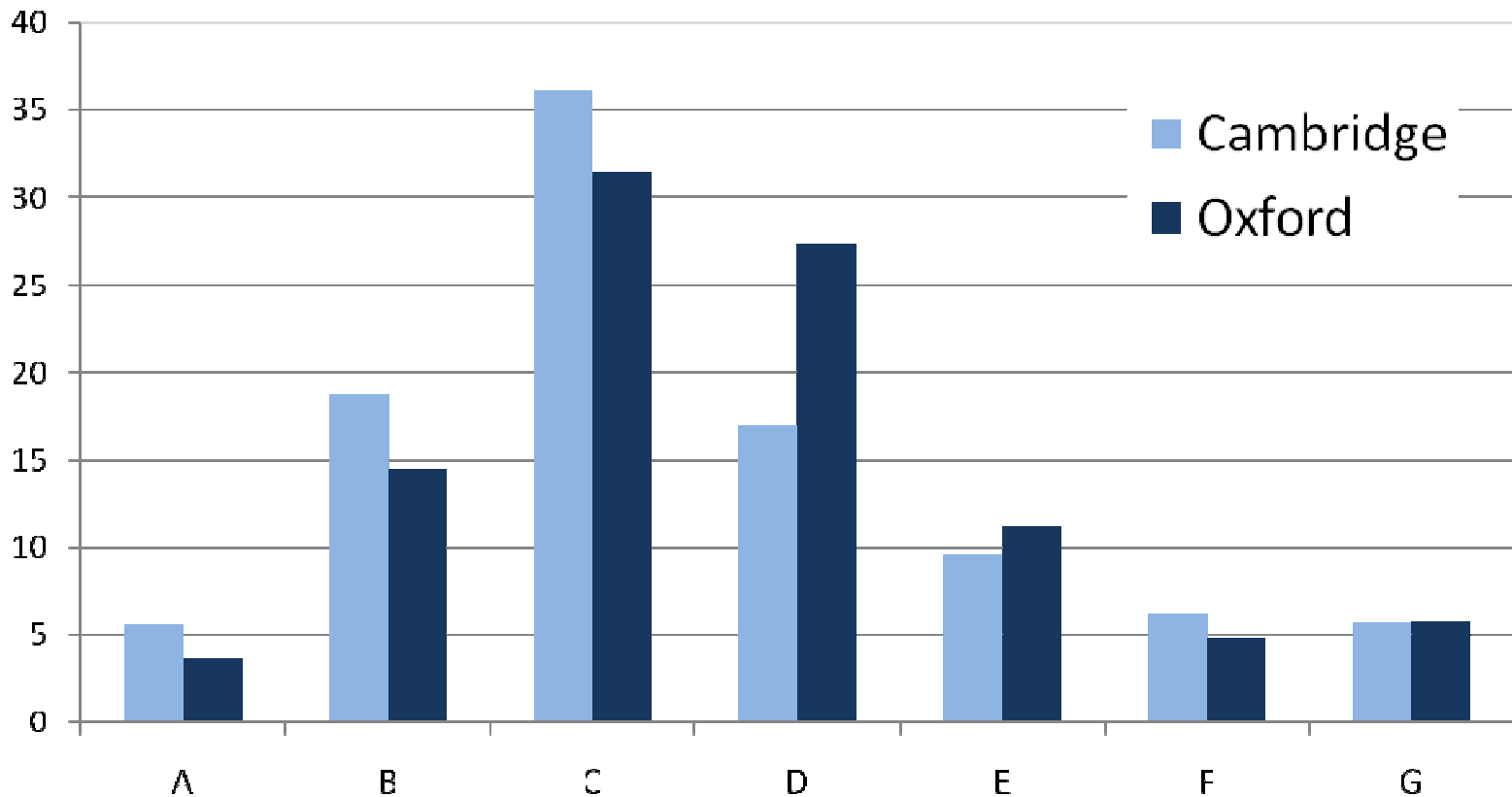
Source: DEFRA Nov 2007, data developed by AEA Energy and Environment

# Comparison of domestic CO<sub>2</sub>

|                             |                          | Per capita Total<br>CO2 (tonnes) | Domestic per<br>capita CO2<br>(tonnes) |
|-----------------------------|--------------------------|----------------------------------|--|
| <b>Cheltenham</b>           | <b>Other Urban</b>       | 6.16                             | 2.40                                   |
| <b>Peterborough</b>         | <b>Other Urban</b>       | 8.53                             | 2.37                                   |
| <b>Oxford</b>               | <b>Other Urban</b>       | 8.44                             | 2.32                                   |
| <b>Gloucester</b>           | <b>Other Urban</b>       | 6.45                             | 2.29                                   |
| <b>Cambridge</b>            | <b>Other Urban</b>       | 7.17                             | 2.15                                   |
|                             |                          |                                  |  |
| <b>Vale of White Horse</b>  | <b>Rural – 50</b>        | 10.54                            | 2.74                                   |
| <b>Stroud</b>               | <b>Rural – 50</b>        | 10.38                            | 2.70                                   |
| <b>Tewkesbury</b>           | <b>Rural – 50</b>        | 13.55                            | 2.70                                   |
|                             |                          |                                  |  |
| <b>Cotswold</b>             | <b>Rural – 80</b>        | 11.28                            | 3.23                                   |
| <b>South Oxfordshire</b>    | <b>Rural – 80</b>        | 10.52                            | 3.00                                   |
| <b>West Oxfordshire</b>     | <b>Rural – 80</b>        | 8.84                             | 2.87                                   |
| <b>South Cambridgeshire</b> | <b>Rural – 80</b>        | 14.88                            | 2.65                                   |
| <b>Forest of Dean</b>       | <b>Rural – 80</b>        | 8.67                             | 2.64                                   |
| <b>Fenland</b>              | <b>Rural – 80</b>        | 13.10                            | 2.63                                   |
| <b>East Cambridgeshire</b>  | <b>Rural – 80</b>        | 12.28                            | 2.62                                   |
| <b>Huntingdonshire</b>      | <b>Rural – 80</b>        | 11.83                            | 2.50                                   |
|                             |                          |                                  |  |
| <b>Cherwell</b>             | <b>Significant Rural</b> | 12.57                            | 2.56                                   |

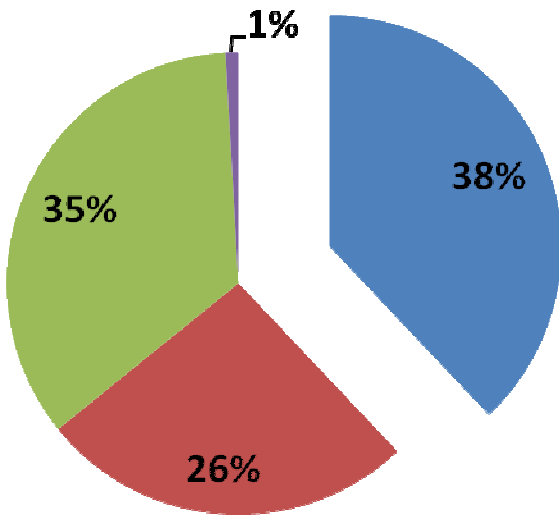
# Influence of housing stock

Dwelling stock by Council Tax band 2005



# Mapping activity in Oxfordshire

|  | Reducing emissions | Adapting to climate change |
|--|--------------------|----------------------------|
| <b>Industry and Commercial</b>                 |                    |                            |
| <b>Road transport</b>                          |                    |                            |
| <b>Domestic</b>                                |                    |                            |
| Changes in forestry and soil use (carbon sink) |                    |                            |



# INDUSTRIAL AND COMMERCIAL

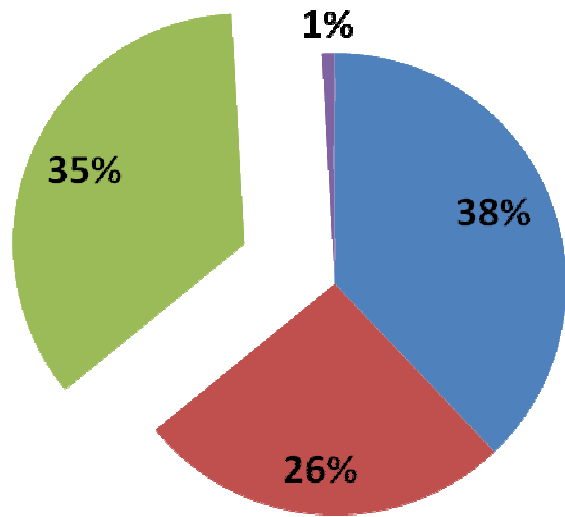
including public sector

# Reducing emissions

- Local Authority carbon management programmes
- Waste audits now extending to general sustainability
  - Business resource efficiency packs
  - *“Biggest thing with businesses is their lack of time, try to give all the information at the same time”*
- Environmental Information Exchange at Oxford Brookes
- Thames Valley Energy support on renewables
  - *“Building renewables capacity could be a project for the partnership”*

# Adapting to climate change

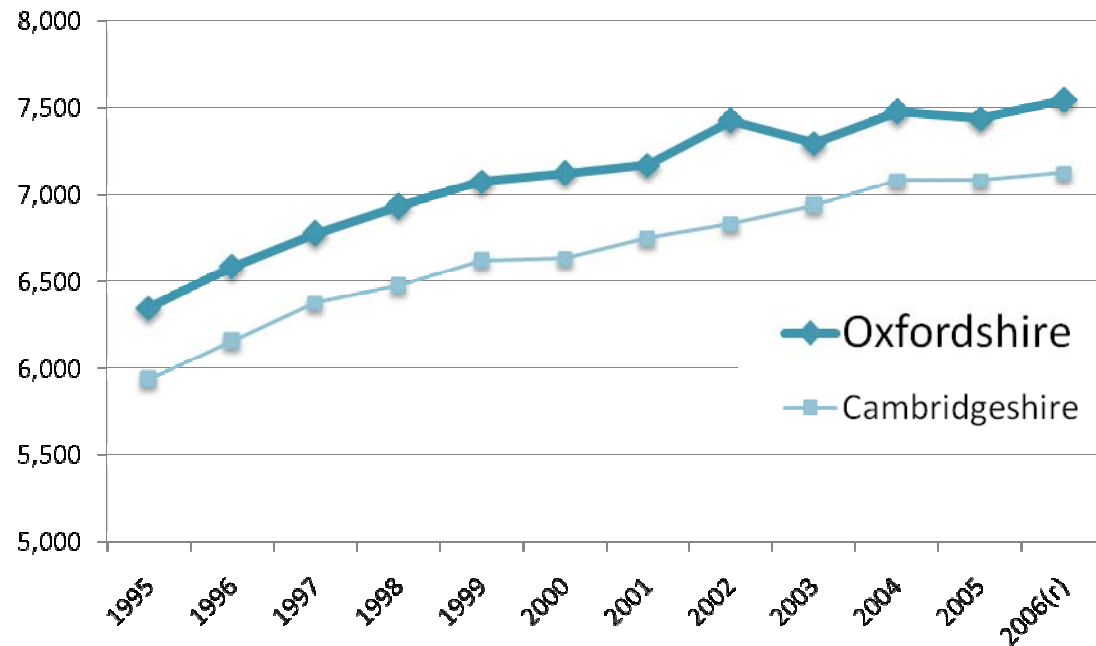
- UK Climate Impacts Programme work with Local Authorities
  - Local Climate Impacts Profile piloted in Oxfordshire
- Adaptation work with businesses:
  - Building adaptive capacity
  - Delivering adaptation actions



# ROAD TRANSPORT (FUEL USE)

# Traffic flow continuing to increase

Estimated traffic flows for all motor vehicles (million vehicle kilometres)



Source: [www.dft.gov.uk/transtat/roadtraff](http://www.dft.gov.uk/transtat/roadtraff)

- Growth in population and (potentially) cars per household means traffic likely to continue to increase

# Reducing emissions

- Planning Policy Statement 1 - sustainable development - includes reducing the need to travel
  - But will affect new development only
- Oxfordshire's Local Transport Plan is “silent” on climate change
  - The 5 criteria includes air quality but not emissions
  - *“need to get ahead and develop an embryonic strategy as pre-work for the new transport plan”*
- Potential impact of increased home working?
  - Reduce travel but increase energy consumption at home

# In the media...

- Gallagher report on biofuels published 7<sup>th</sup> July 2008

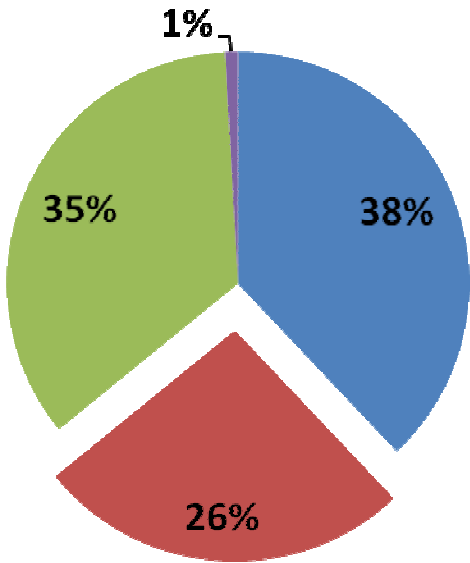


“Feeding cars instead of people pushes up food prices and fuels deforestation.”

Friends of the Earth

“changes to the Renewable Transport Fuel Obligation will create uncertainty at a time when long-term investment is required to realise the potential of the sector.”

NFU



**DOMESTIC**

# Oxfordshire Climate Communities

Challenge North Leigh



Faringdon EcoWeek



Over 30 communities in Oxfordshire are active on climate change – find out where they are and how you can get involved: [www.climatex.org](http://www.climatex.org)



St Margaret's Church

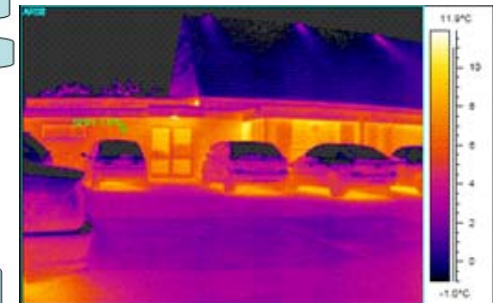
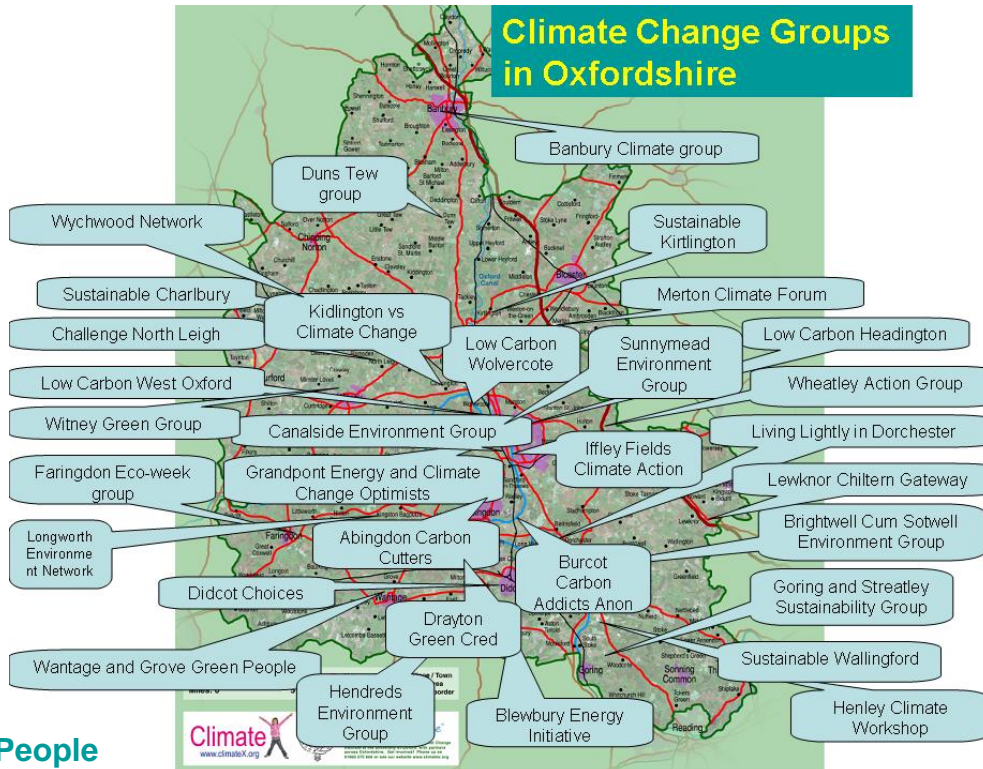


Low Carbon Wolvercote



Kidlington vs Climate Change's first meeting

Low Carbon Wolvercote's car free day



Blewbury Energy Initiative

Wantage and Grove Green People – screening An Inconvenient Truth

# Domestic emissions

- Community Action Groups (waste) a part of wider sustainability work



working locally to make a difference

- Energy efficiency
  - Differing levels of resources in District Councils
- Thames Valley Energy support on renewables
- Renewable installations by households – some evidence of demand
  - joint COIN/ClimateX event, 18 homes, 1,200 visits

# Domestic adaptation

- A few examples of community action on adaptation:
  - Kennington “Flooding Working Group”
  - Shipton-under-Wychwood “Flood and Emergency plan”
- UKCIP currently “focused on organisations rather than communities”
- Carbon emissions targets and actions have dominated the media

# Climate Change

from the BBC Weather Centre

Evidence

Impacts

Adaptation

## Adaptation



The list of things we need to think about which will be affected by climate change is endless. In this section we give you a few examples of how we will need to change the way we live in order to cope with changes to our climate.

The regular use of renewable energy is becoming increasingly popular. Have a look at the possibilities for alternative energy sources, including solar power, wind power, geothermal, water power and even nuclear energy.

Play our game - I'm alright Jack - to influence his environment. You get to make choices at several stages in his life and can even decide how his house should be built.

What else can you do to help adapt to climate change and what can you do to help slow it down? There are many things we can all do at home. There are a [host of ideas in Life at Home](#).

Things you can do today at no cost:

Buildings in the south east constructed like those in Scotland are correct. See what needs to be done for the more severe

- ◆ Turn off lights when you leave a room
- ◆ Only boil the amount of water you need in your kettle
- ◆ Turn off televisions, videos, stereos and computers when they are not in use - they can use between 10 and 60% of the power they use when on
- ◆ Don't leave fridge doors open for longer than necessary, let food cool down fully before putting in the fridge or freezer, defrost regularly and keep at the right temperature
- ◆ Close curtains at dusk to keep in heat
- ◆ Let your clothes dry naturally rather than using a tumble drier
- ◆ Turning down the thermostat for your heating by 1 degree could cut your heating bill by 10%
- ◆ Set your water thermostat for 60 degrees - this is plenty warm enough for bathing and washing and will save money too
- ◆ Use economy programmes on dishwashers or washing machines

Public unlikely to differentiate between “mitigation” and “adaptation..”

# Mapping activity in Oxfordshire

|                                     | Reducing emissions  | Adapting to climate change                  |
|-------------------------------------|---|---|
| Commercial and Industry             | <p>LAA2 target</p> <p>LA carbon management</p> <p>Resource efficiency work (waste)</p> <p>EIE</p> <p>Thames Valley Energy</p>   | <p>LAA2 target</p> <p>UKCIP</p>             |
| Road transport                      | <p>PPS1</p> <p>Next LTP?</p>  | <p>Oxfordshire Highways (e.g. drainage)</p> |
| Domestic                            | <p>District Council support on energy efficiency</p> <p>ClimateXchange</p> <p>Community Action Groups (waste)</p> <p>Direct and indirect influence of planning policy</p> | <p>Some work by individual communities</p>  |
| Changes in forestry and soil carbon |   |   |



**WHAT ABOUT THE BUSINESS  
OPPORTUNITY?**

# Oxfordshire can claim leadership in climate and sustainability science

OXFORD UNIVERSITY  
CENTRE FOR THE  
ENVIRONMENT



The OUCE consists of the:



SCHOOL OF  
GEOGRAPHY



ENVIRONMENTAL  
CHANGE INSTITUTE



TRANSPORT  
STUDIES UNIT



1

*"The University of Oxford and Sir David King create School of Enterprise and the Environment"*

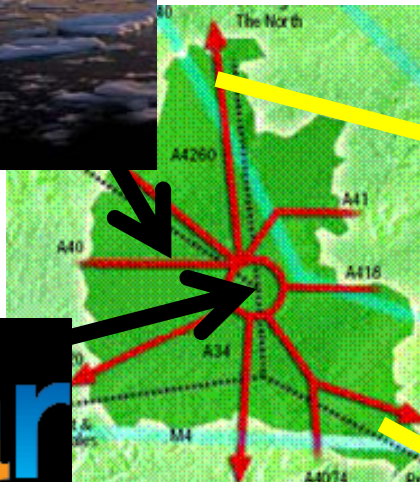


2

# Harder to find evidence of a “hub” for environmental business in Oxfordshire



*Eynsham*



Buckingham

- + 5 others on Carbon Trust database (of 600)
- + companies highlighted by Sustainable Business Awards

# Action by businesses

- How many businesses are taking action?
- Doesn't need to be sold on "climate change" or "increasing profits"
- Can be about efficiency - "re-engineering business operations"



**Adaptive businesses**



# STRATEGIC DIRECTION

# Strategic direction

- Already set out by:
  - Stern review
  - Nottingham Declaration
  - UK Climate Change Programme
  - UK Climate Change bill
  - South East plan
  - Oxfordshire SCS
- International and national emissions targets

# Stern review (Oct 2006): the Economics of Climate Change



- “Climate change is the greatest market failure the world has ever seen, and it interacts with other market imperfections.
- Three elements of policy are required for an effective global response:
  1. Pricing of carbon, implemented through tax, trading or regulation.
  2. Policy to support innovation and the deployment of low-carbon technologies.
  3. Action to remove barriers to energy efficiency, and to inform, educate and persuade individuals about what they can do to respond to climate change. ”

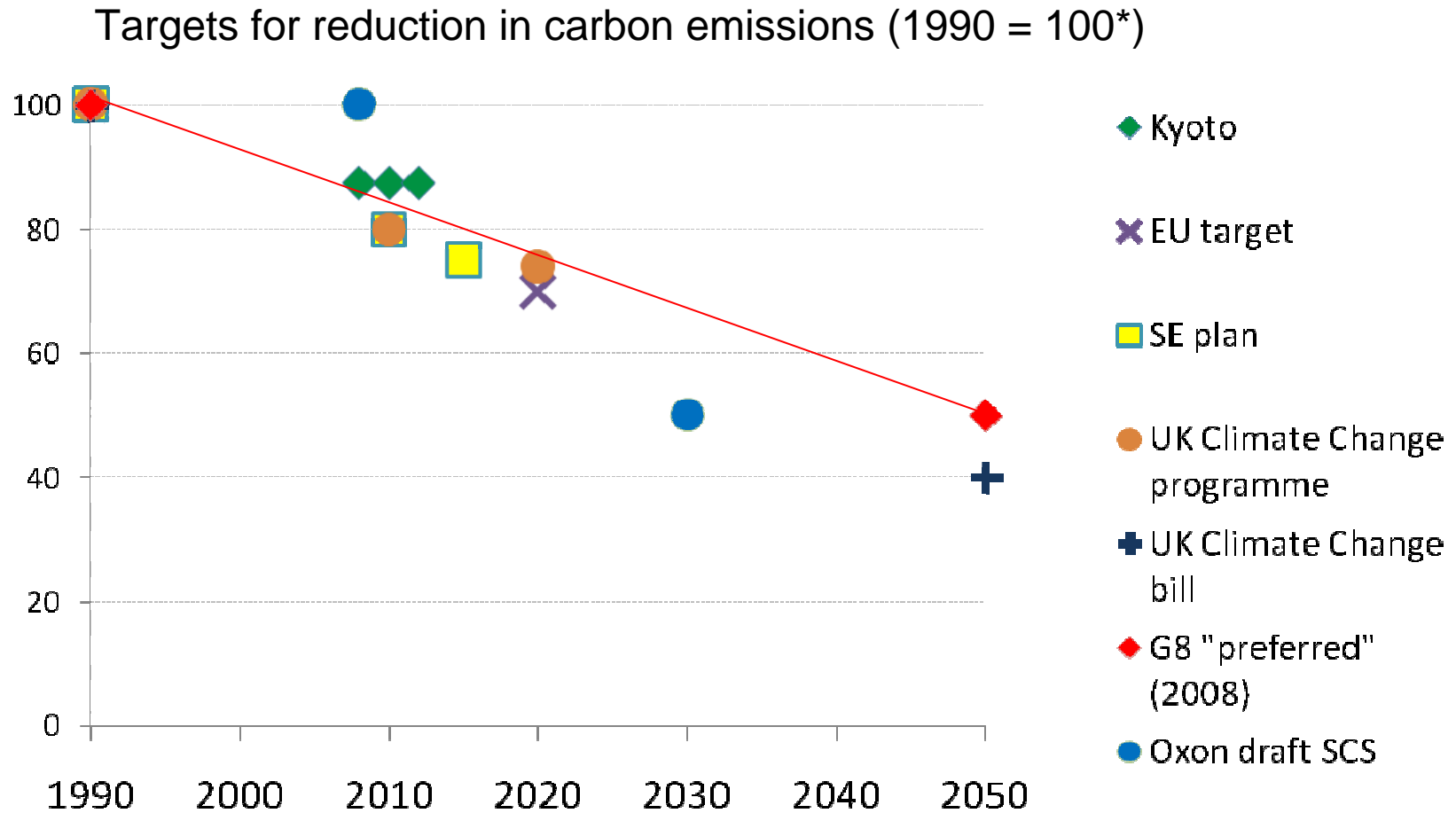
# Nottingham Declaration



- We commit to..
  - ..contribute, at a local level, to the delivery of the UK Climate Change programme, the Kyoto protocol and the target for CO<sub>2</sub> reduction by 2010
  - ..within the next two years develop plans with our partners and local communities to progressively address the causes and the impacts of climate change..

*All 6 of Oxfordshire's LAs have signed*

# Multiple and changing targets



\* Except Oxfordshire SCS where 2008 = 100

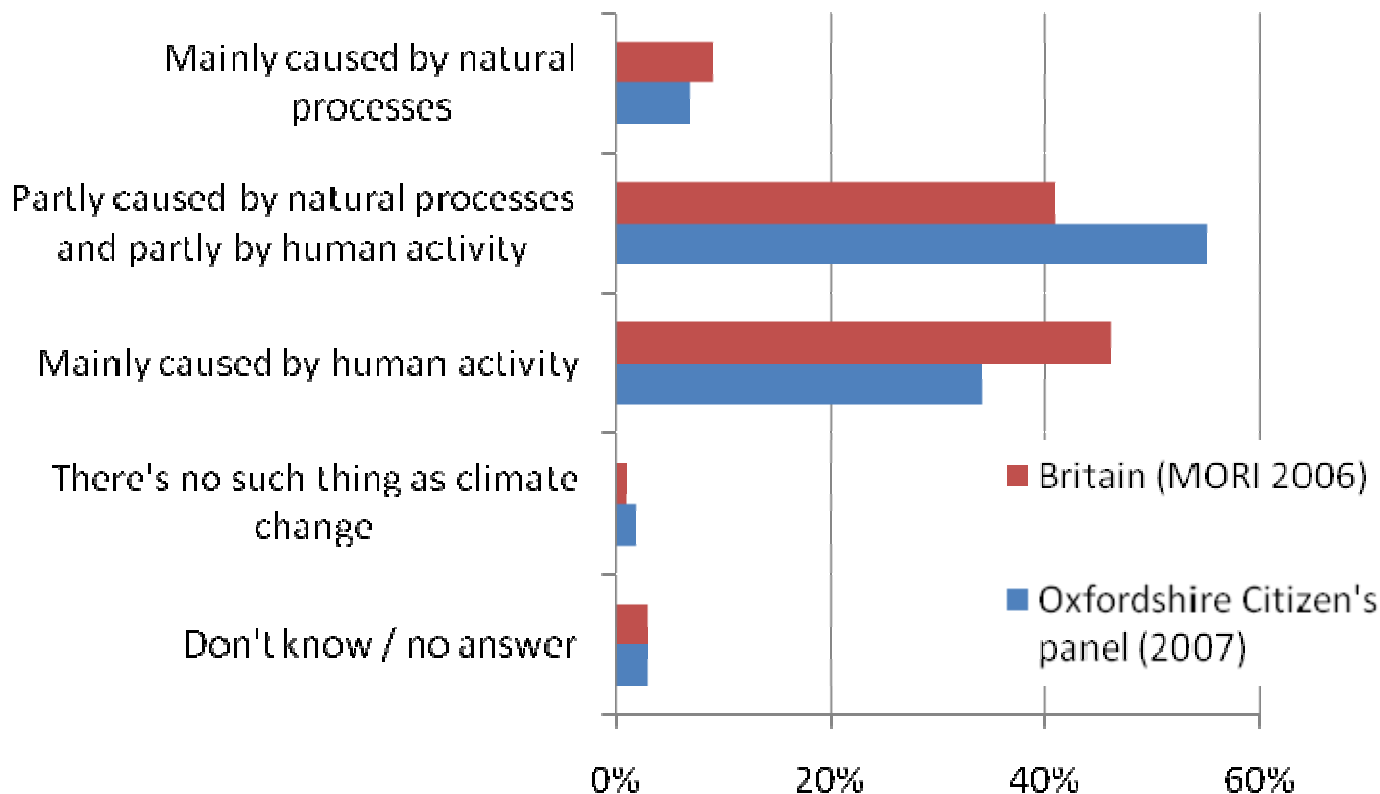


**WHAT DOES THE PUBLIC  
THINK ABOUT CLIMATE  
CHANGE?**

# Oxfordshire more sceptical of man-made climate change than average?

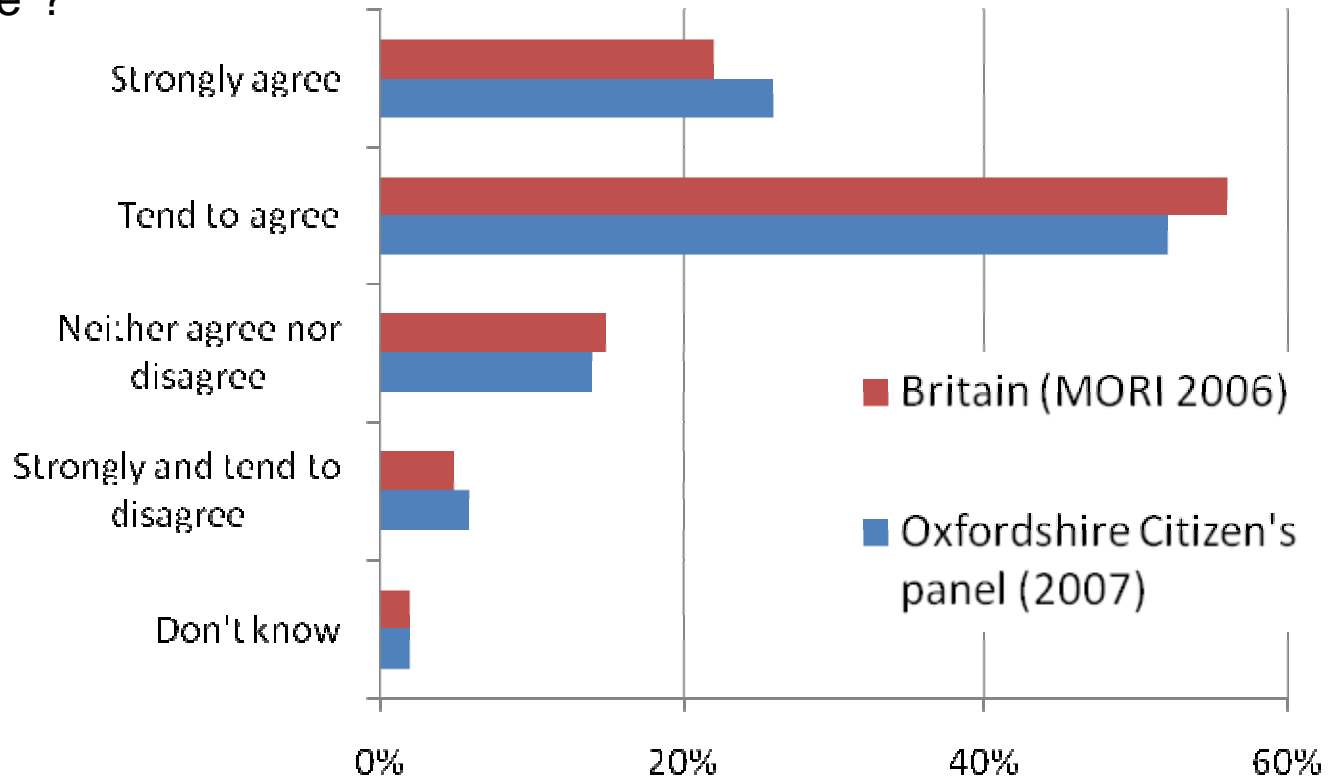
It is very likely (>90% probability) that man-made greenhouse gas emissions caused most of the observed global average temperature rise since the mid 20th century. UKCIP08

Do you think that climate change is...

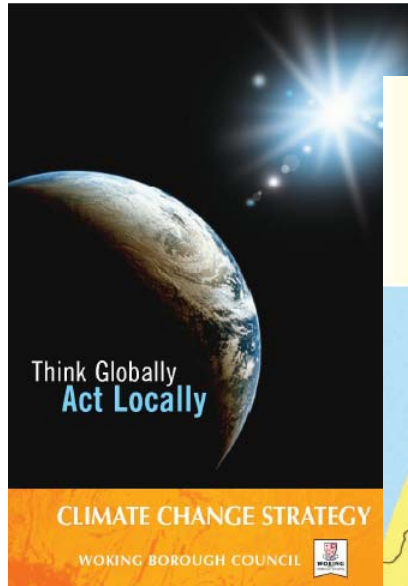


# Similarly likely to change behaviour

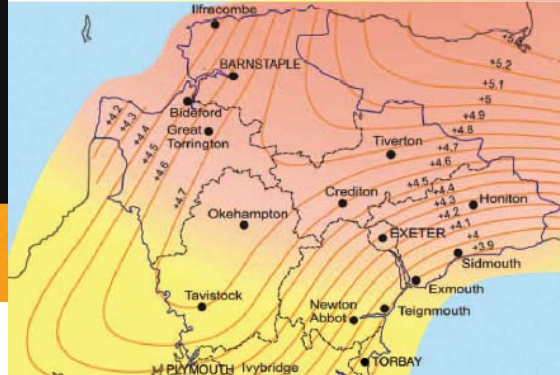
How strongly do you agree or disagree with the statement that "I would be prepared to change my behaviour to help limit climate change"?



*"The behaviours most jealously guarded are those that provide individuals with a high degree of personal utility or mobility"*



A Warm Response  
Our Climate Change Challenge  
A Devon County Council Strategy for 2005  
... and the foreseeable future



# Tackling climate change in Cambridgeshire



Cambridgeshire County Council Climate Change Strategy

## Warwickshire Climate Change Strategy

'Thinking global, acting local'



# A CLIMATE CHANGE STRATEGY FOR OXFORDSHIRE?

# Need for a climate change strategy?

- Respondents asked for:
  - **Sharing** experience and information, sharing best practise;
  - **Visibility**, esp for existing work by Councils and communities;
  - **Peer support** (individuals, communities, partnerships, agencies);
  - **Understanding** what will make a difference, what works;
  - A way of **influencing** policy;

*Not clear that these things need a strategy*

## Appears to be a choice between...

1. Joint development of a climate change strategy
2. Taking **action** on a (small) number of priority projects

# Option 1 : Develop a strategy

- Following the SCS model
  - Participative
  - Evidence-based
- Could include wider (public) consultation
- Results in document(s)
- Can include an action plan
- Takes at minimum 9 months

# Option 1: Develop a strategy

## For

- + A chance to develop a joint vision
- + Bring people together
- + Agree role of partners

## Against

- *“We’ve done all the talking – now need actions”*
- Diversion of scarce resources
- Relevance to existing activities?

*Estimated cost: £10k +*

# Option 2: Work on a small number of priority projects

## Recognising and building on existing work

*From this research...*

1. Exploring lessons from, overlaps with and potential for joint work with Waste Partnership
2. Developing a communications plan (internal and external)
3. Investigating “what makes a difference” (e.g. how do projects like *Faringdon Eco-week* happen?)
4. Looking into LA funding to support community capacity building – building adaptive communities
5. Joint work on renewables
6. Developing better data

***Plus links with OEP and Transport***

## Option 2: Start joint work

### For

- + Build partnership through shared action
- + Address issues we already know about (e.g. communication)
- + Opportunity for further joint learning

### Against

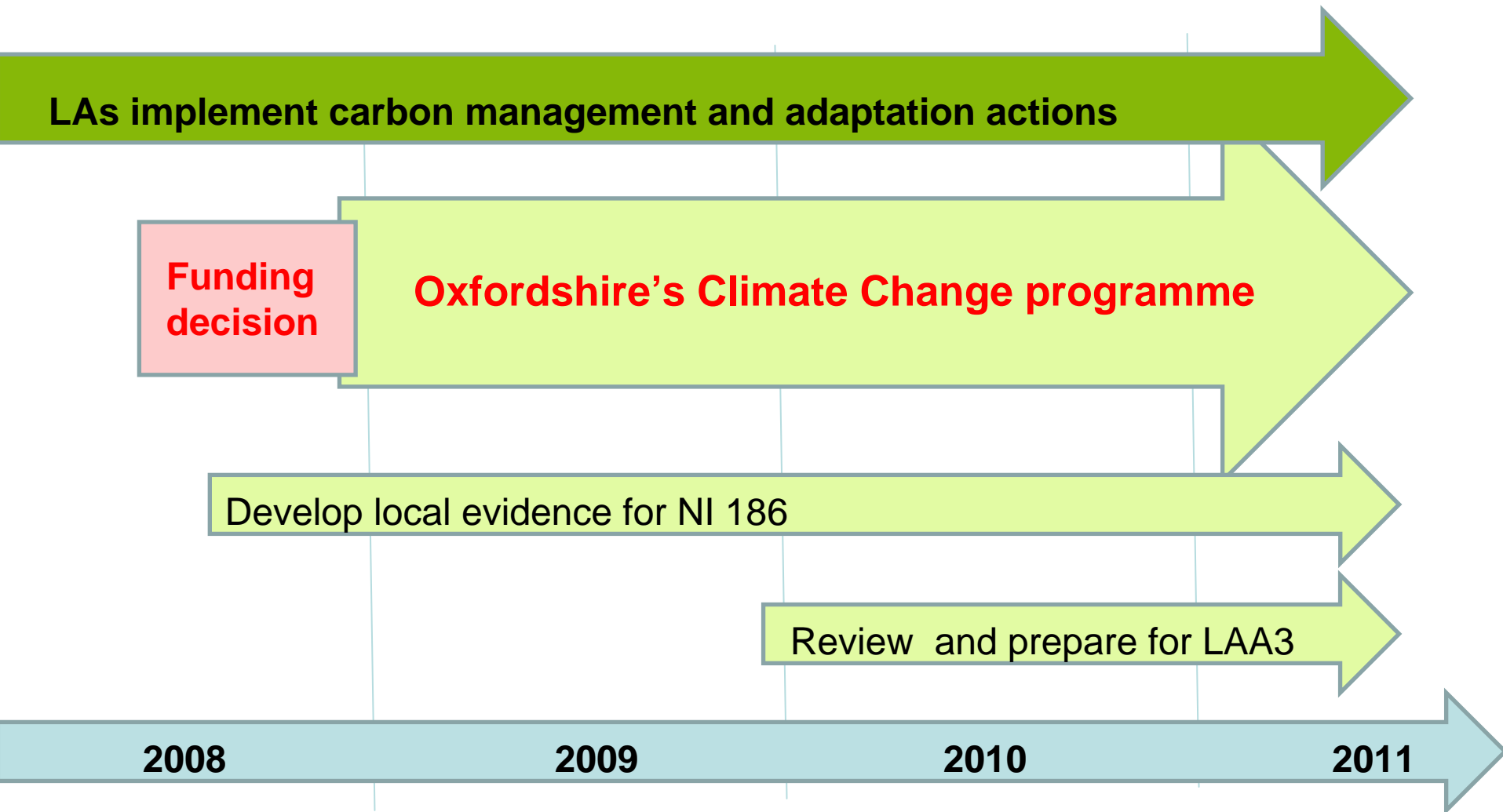
- Agreement on which projects to choose?
- May need resources earlier on (than doing a strategy)

*Estimated cost: £10k ++*

# Roles and responsibilities **MUST** be clear

- Set emissions targets by sector and/or geography?
  - Business / transport / domestic
  - County level; district level; community?
- Find a lead body for each sector
- Central partnership leads on communications and monitoring

# Timing and resourcing the work



**Questions and comments welcome..**

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