



## **Preparing for the worst or hoping for the best? British priorities on climate change adaptation**

26/03/2014

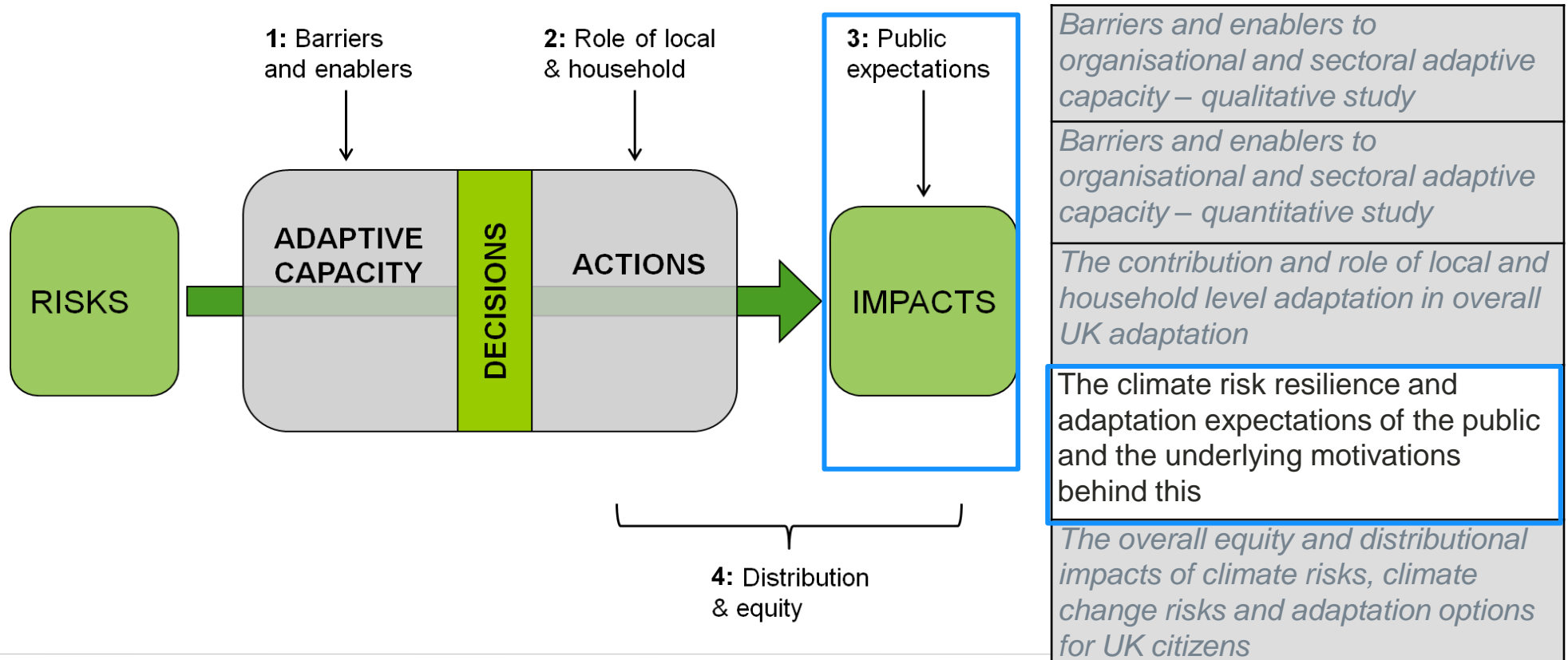
# Background to the research

- PREPARE carried out for Defra by Ipsos MORI, Ricardo AEA, Alexander Ballard and University of Leeds in 2012-13
- Overall objective: understand public perceptions of climate risk and adaptation to inform the **National Adaptation Plan (NAP)** and to provide evidence to help Government to achieve its vision of a well-adapted UK
- Specifically to understand:

- The **extent** to which climate change is viewed as **important** and **adaptation** as **necessary**;
- Which **specific impacts** are a **priority** to **prepare** for and **why**;
- Which **areas** and **groups** of people are a priority to **protect** from climate change;
- What **levels** of **risk** posed by climate are **acceptable** to the public and why;
  - What views do the public have on different adaptation actions?;
- How is climate change adaptation viewed and **who** is perceived to be best-placed to **act**.

# PREPARE Research Programme

- Five areas of social research to support developing adaptation strategy: the NAP
- Focus of this presentation is public expectations around impacts and risk acceptability



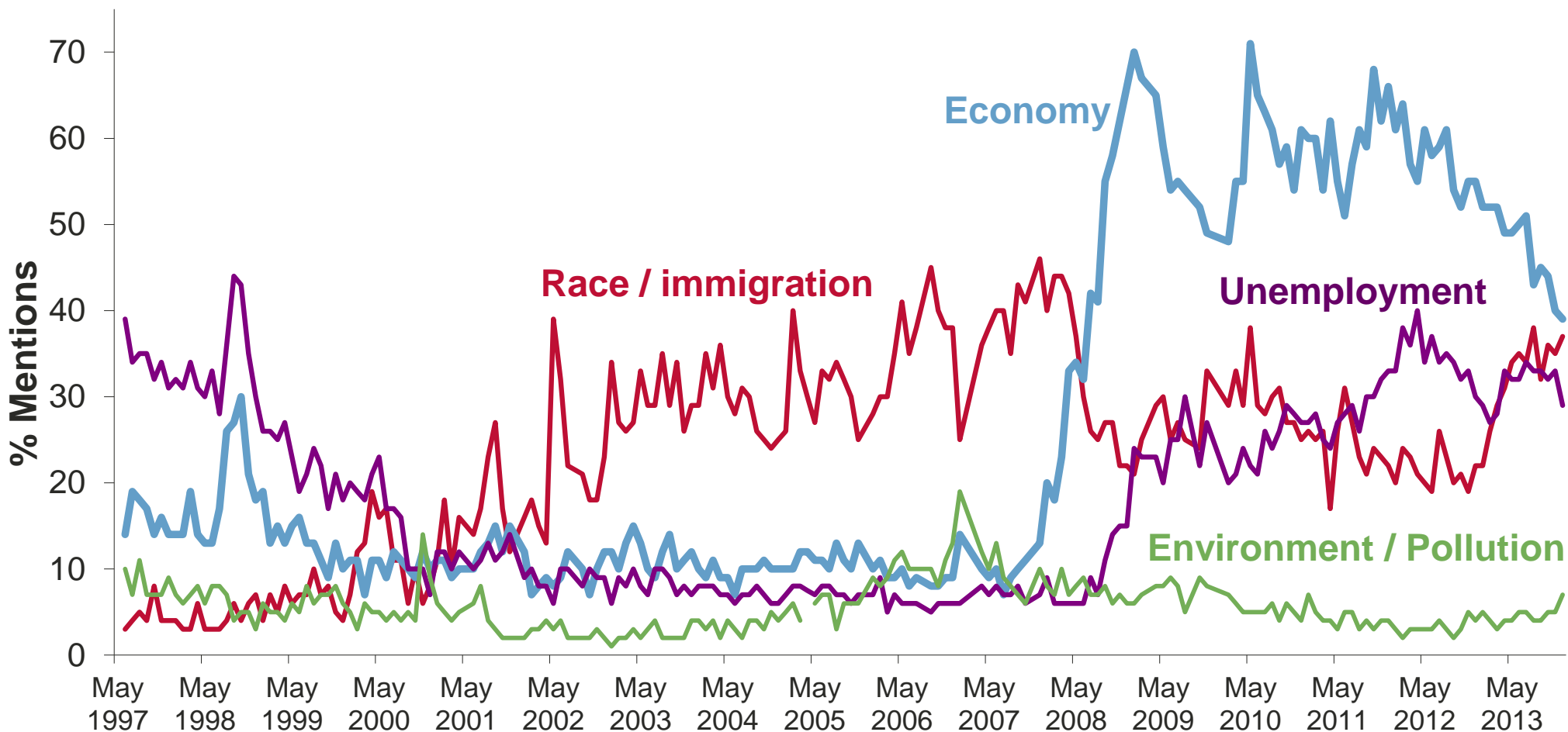
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# Where is 'the environment' and climate change on the public's agenda?

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# Compared to the top 3 issues, the environment hardly features

*What do you see as the most/other important issues facing Britain today?*



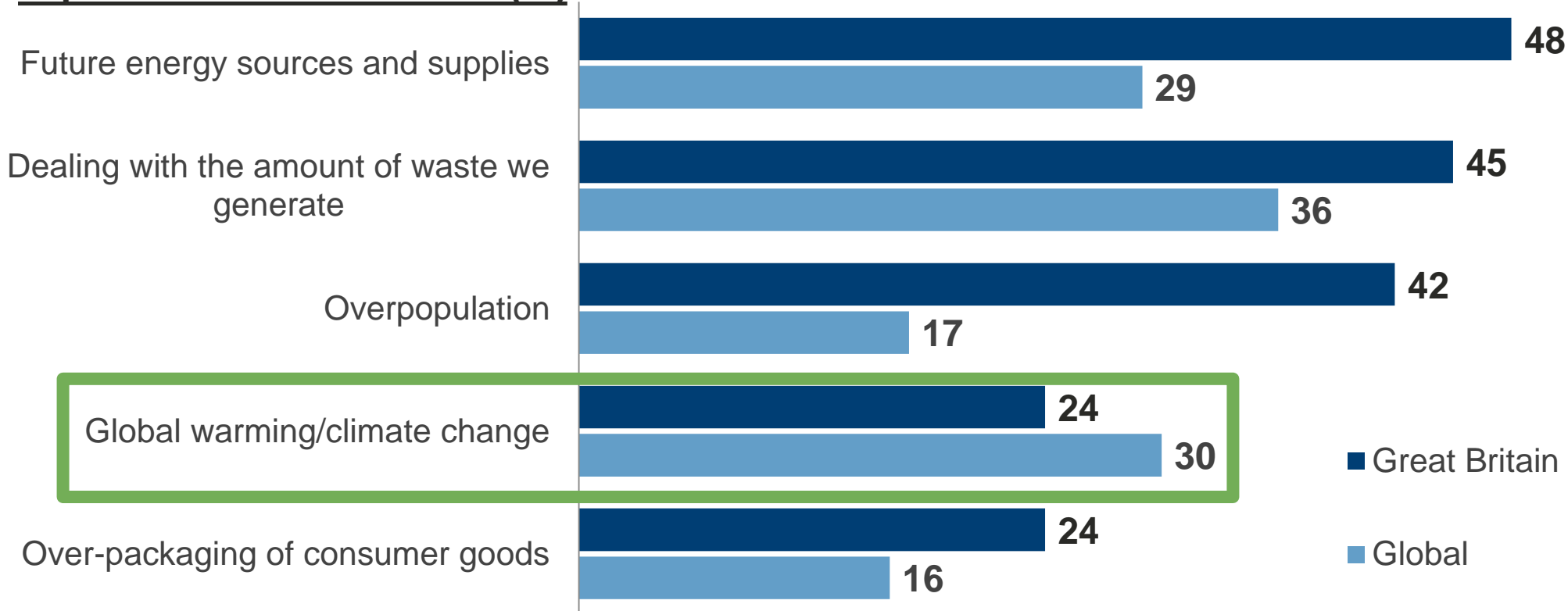
Base: representative sample of c.1,000 British adults age 18+ each month, interviewed face-to-face in home

Source: Ipsos MORI Issues Index

# And climate change is not seen as the biggest environmental issue

*In your view, what are the three most important environmental issues facing [your country] today? That is, the top environmental issues you feel should receive the greatest attention from your local leaders?*

## Top Great Britain mentions (%)



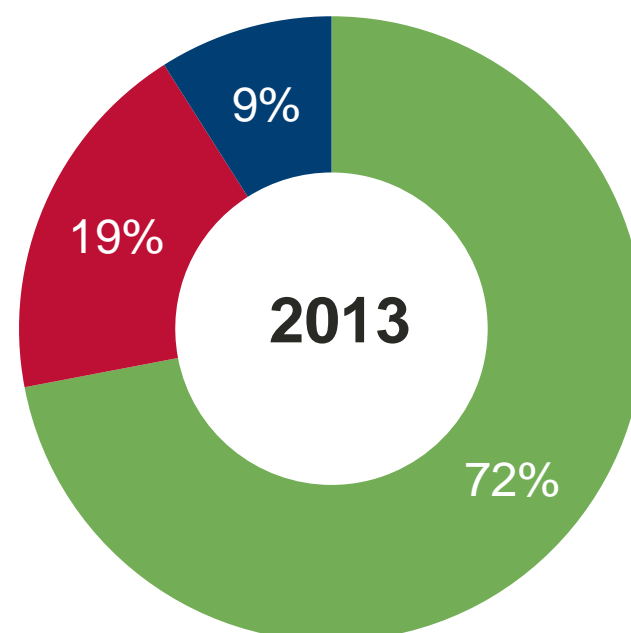
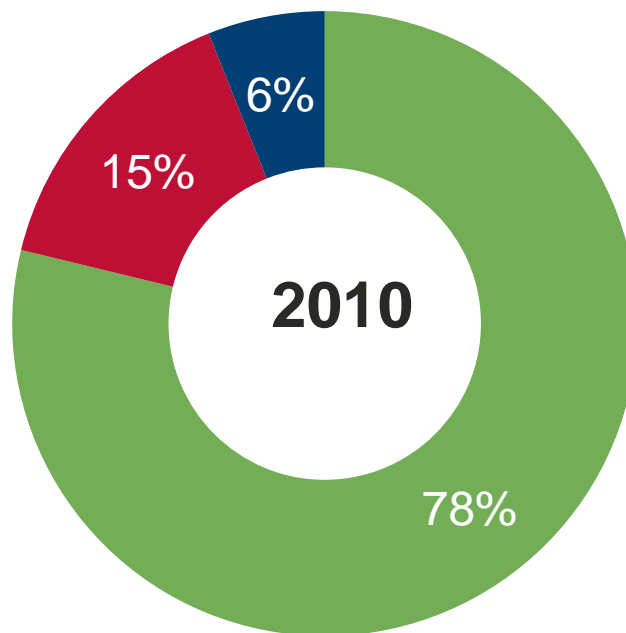
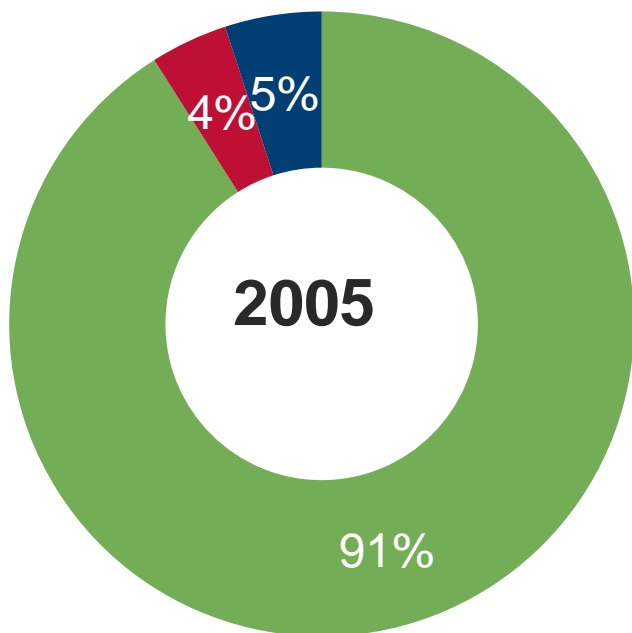
Base: Global -18,503 adults aged 18-64 in the US and Canada, and aged 16-64 in 23 other countries, 6<sup>th</sup>-20<sup>th</sup> August 2013 (at least +500 interviewed in each country). Great Britain – 1,000 adults aged 16-65 in Great Britain. All conducted on Ipsos Online Access Panel.

Ipsos MORI Global @dvisor (Environmental Concern)

# Nearly three quarters believe that the world's climate is changing but scepticism has increased

Q. As far as you know, do you personally think the world's climate is changing, or not?

% Yes  
% No  
% Don't know



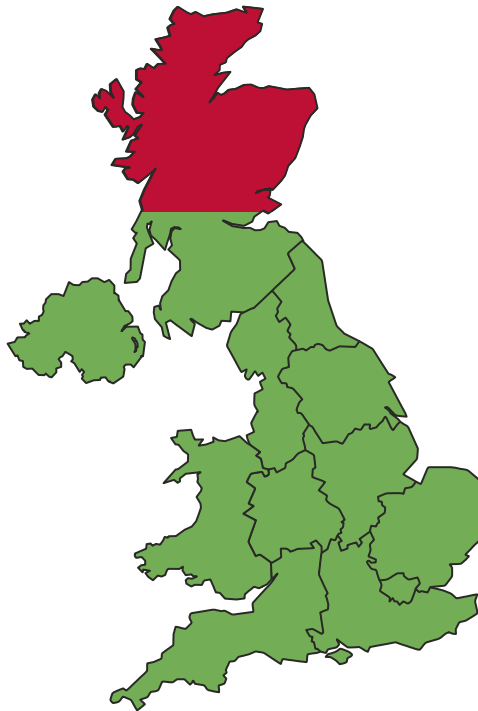
# And concern about climate change is also falling

**2005**



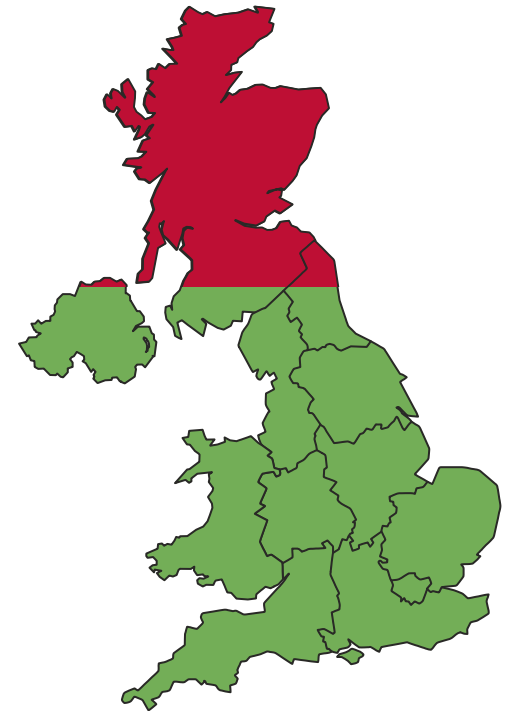
**82% concerned**

**2010**



**71% concerned**

**2013**



**60% concerned**



# Only Americans are less likely to agree that climate change is anthropogenic

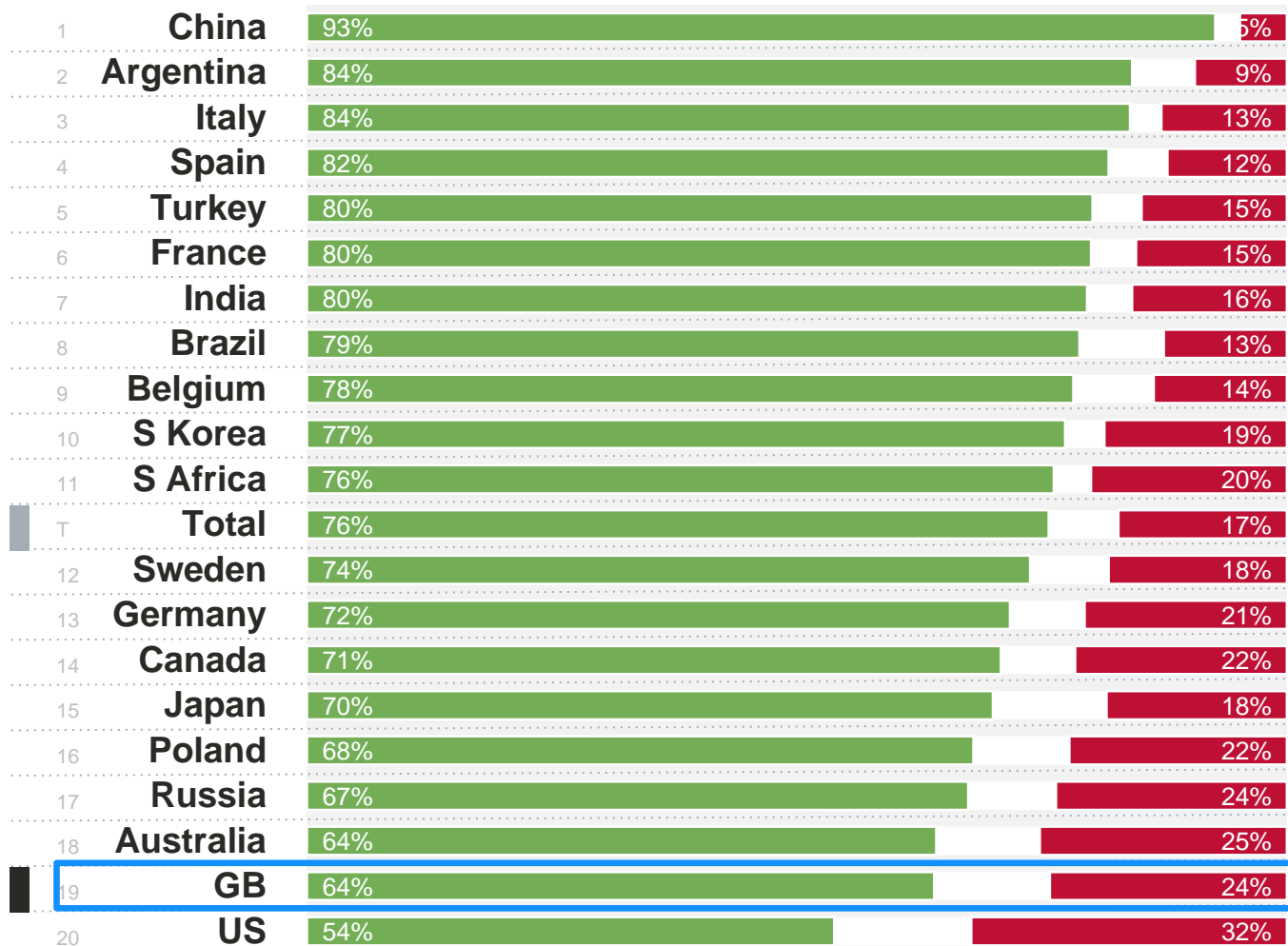
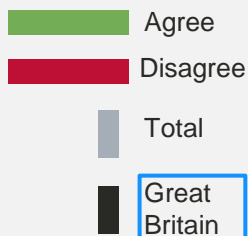
## The Global Trends Survey



To what extent do you agree or disagree...

The climate change we are currently seeing is largely the result of human activity?

### Key



Base: 16,039 adults across 20 countries (1,000 GB), online, 3-17 Sept 2013

Question 15h

Ipsos MORI  
Social Research Institute

Published

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# For more information on British attitudes to the environment.....

## BRITAIN: A PALER SHADE OF GREEN?

### The environment lags behind other issues

% who identify Environment as an important issue facing

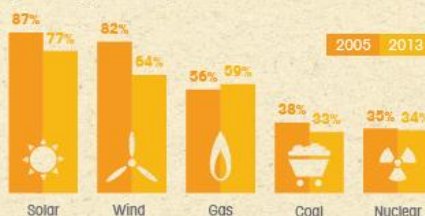


### Energy, waste and overpopulation are environmental priorities

#### Energy Concerns

Energy bills are a worry and we are less keen on renewables than we used to be

% favourable to different energy sources for producing electricity



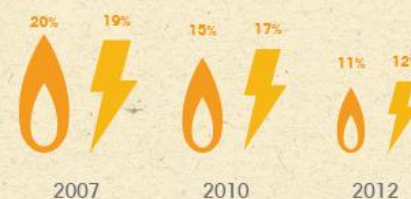
over 4 in 5 are concerned about their household energy bills



26

% believe meeting the UK's future energy needs will be difficult in the next 5 years

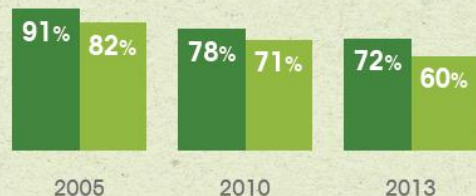
% of customers who reported switching gas or electricity provider in the year...



#### Climate Change

Concern is f

■ Believe the world's climate is changing  
■ Are concerned about climate change



#### Environmental Behaviours

Households are taking positive action but there is still a long way to go

% interested in having a smart meter

% who feel they have control over their energy use

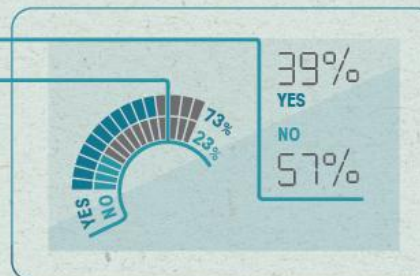


77

% buy more energy efficient appliances

43

% frequently use a 30 degree wash



% willing to drive an electric car

53%

% willing if same performance as petrol

75%

Avoidable UK food waste in million tonnes

5.3

4.2



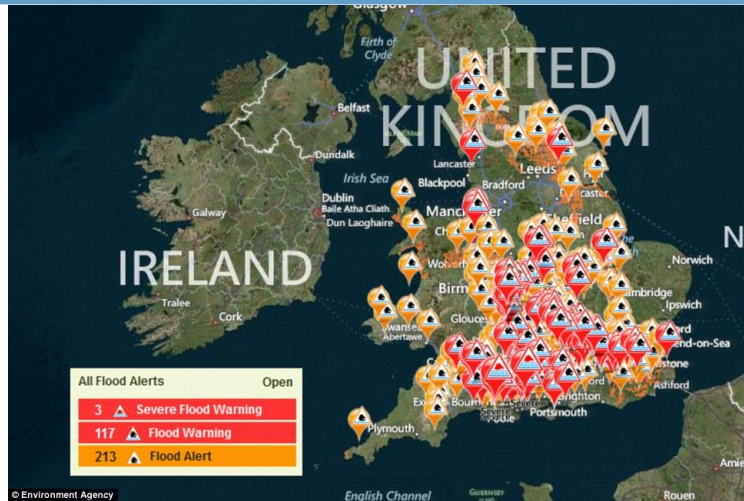
2007

2012





# Why 'PREPARE' is relevant now: preparation / risk higher on public radar with the recent flooding (& wide media coverage)

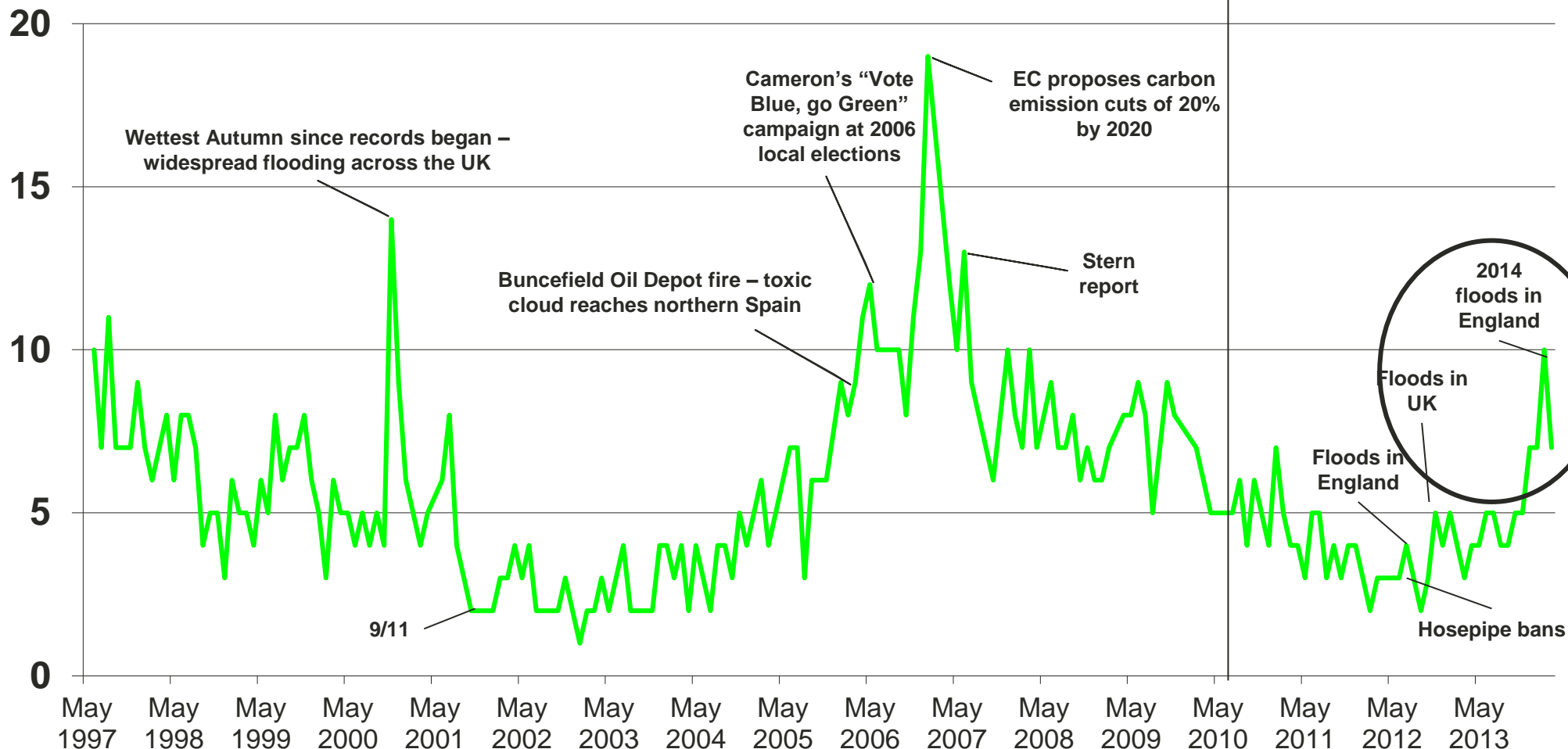


# And the 2014 flooding had greater impact on the public consciousness than other recent events

*What do you see as the most/other important issues facing Britain today?*

Cameron becomes

PM



Base: representative sample of c.1,000 British adults age 18+ each month, interviewed face-to-face in home

Source: Ipsos MORI Issues Index



# With more predictions on climate change impacts to come from the IPCC...



## UK's future climate to be all sorts

COMMENTS (1183)



The BBC's Science Editor David Shukman takes a look at how rain in the air is calculated through a radar system

British winters are likely to become milder and wetter like the last one but cold spells will need to be planned for, says the UK Met

More



## Dissent among scientists over key climate impact report

By Matt McGrath  
Environment correspondent, BBC News, Yokohama



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# What then are views on climate change adaptation?

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# First, a recap on the research

Literature review by University of Leeds



Online survey with general public  
(2,007 interviews in Jan/Feb 2013)



Deliberative workshops with 148 participants  
in 14 locations (Feb/March 2013)



15 follow-up in-depth interviews with  
survey respondents (March/April 2013)

# Fieldwork across UK, including range of risk levels & types

## Quantitative

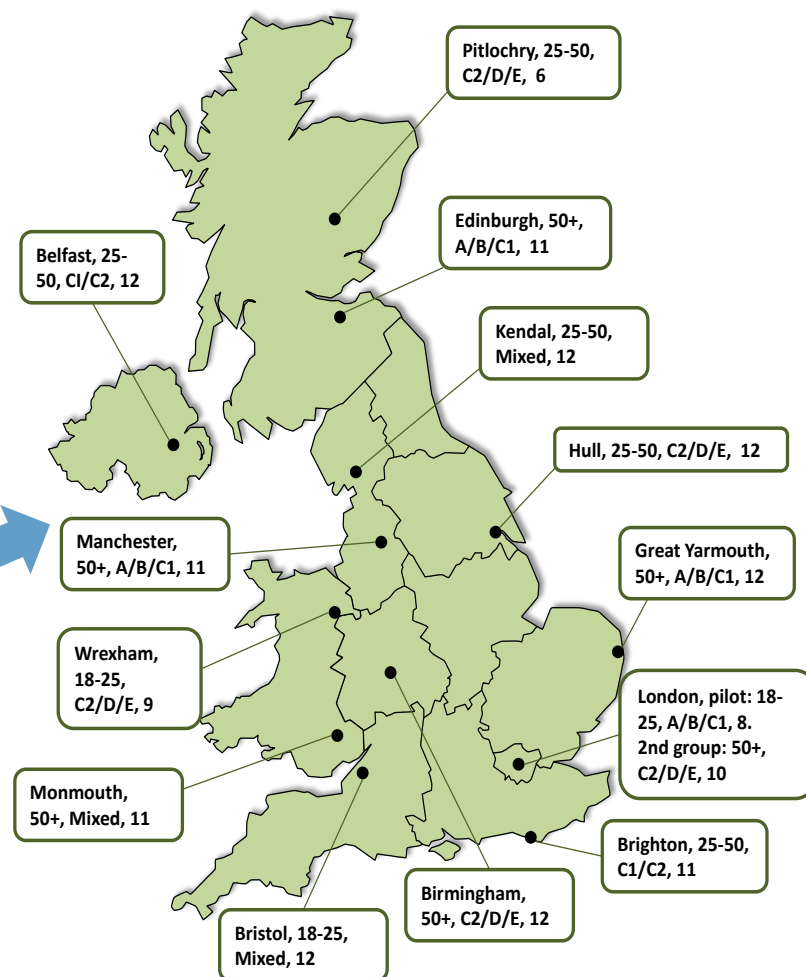
### •Online survey (n = 2,007)

- 30<sup>th</sup> January - 5<sup>th</sup> February 2013
- Adults aged 16+ living in the UK
- Quotas on age, gender, region, and working status

## Qualitative

### •14 deliberative workshops across the UK

- February - March 2013
- 148 participants
- Geographic and demographic spread across the UK
- Varied according to exposure to type/level of climate risk.



Location, age range, social grades and number attending  
147 participants in total, across 14 workshops in 13 locations across the UK

N.B. Fieldwork was conducted soon after widespread heavy flooding across the UK in December 2012.



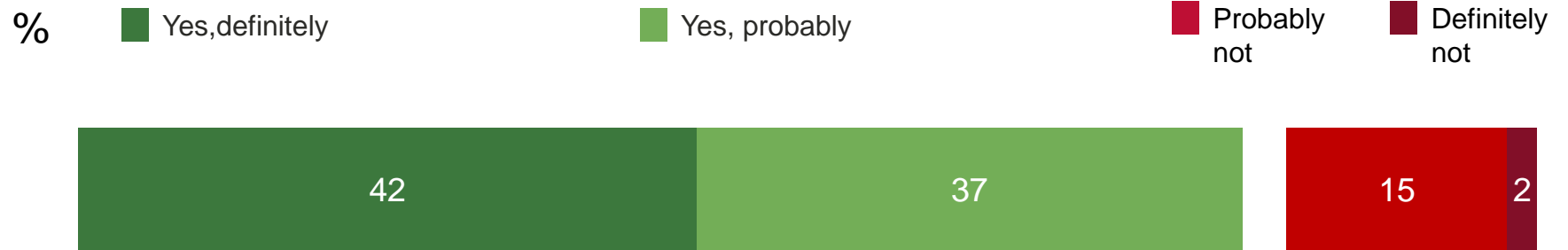
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**Do the public agree there is a need to adapt  
to climate change?**

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# The majority believe they've seen changes in UK's weather

*Do you personally feel that over the long term you have seen any changes in the weather the UK experiences?*



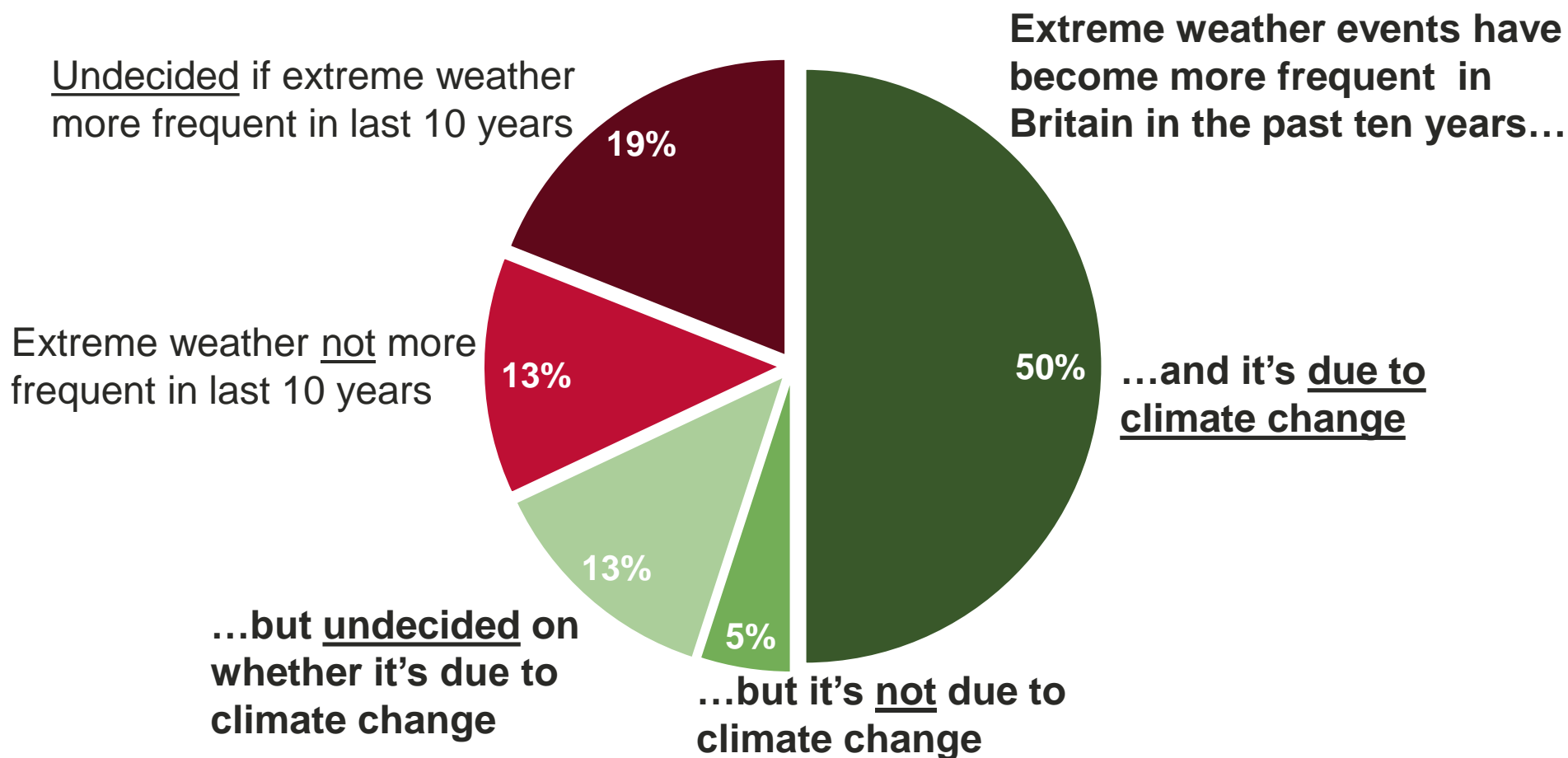
“ *The seasons seem to be getting mixed up and the weather. It's the summer but it will rain for three weeks, or it's October and it's boiling hot.* ”

Workshop participant, London

**Base:** 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013.

# And other studies have shown a majority believe extreme weather is more common and many link it to climate change

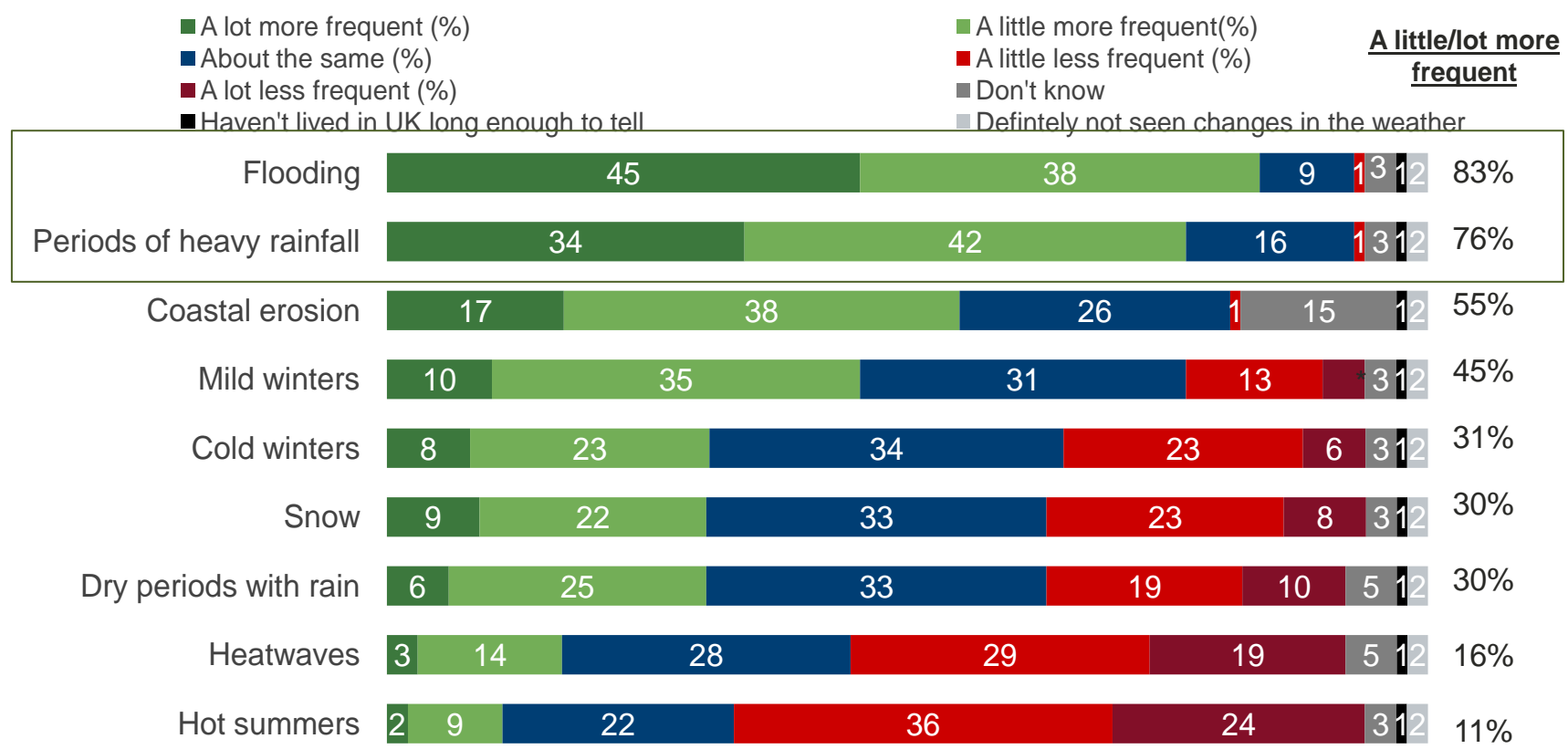
*Extreme weather events have become more frequent in Britain in the past ten years / This increased frequency is due to climate change*



Base: 973 British adults, aged 15+, 8<sup>th</sup> - 26<sup>th</sup> March 2013

# Flooding and heavy rainfall are thought to be more common in the UK than in the past; heatwaves and hot summers less common

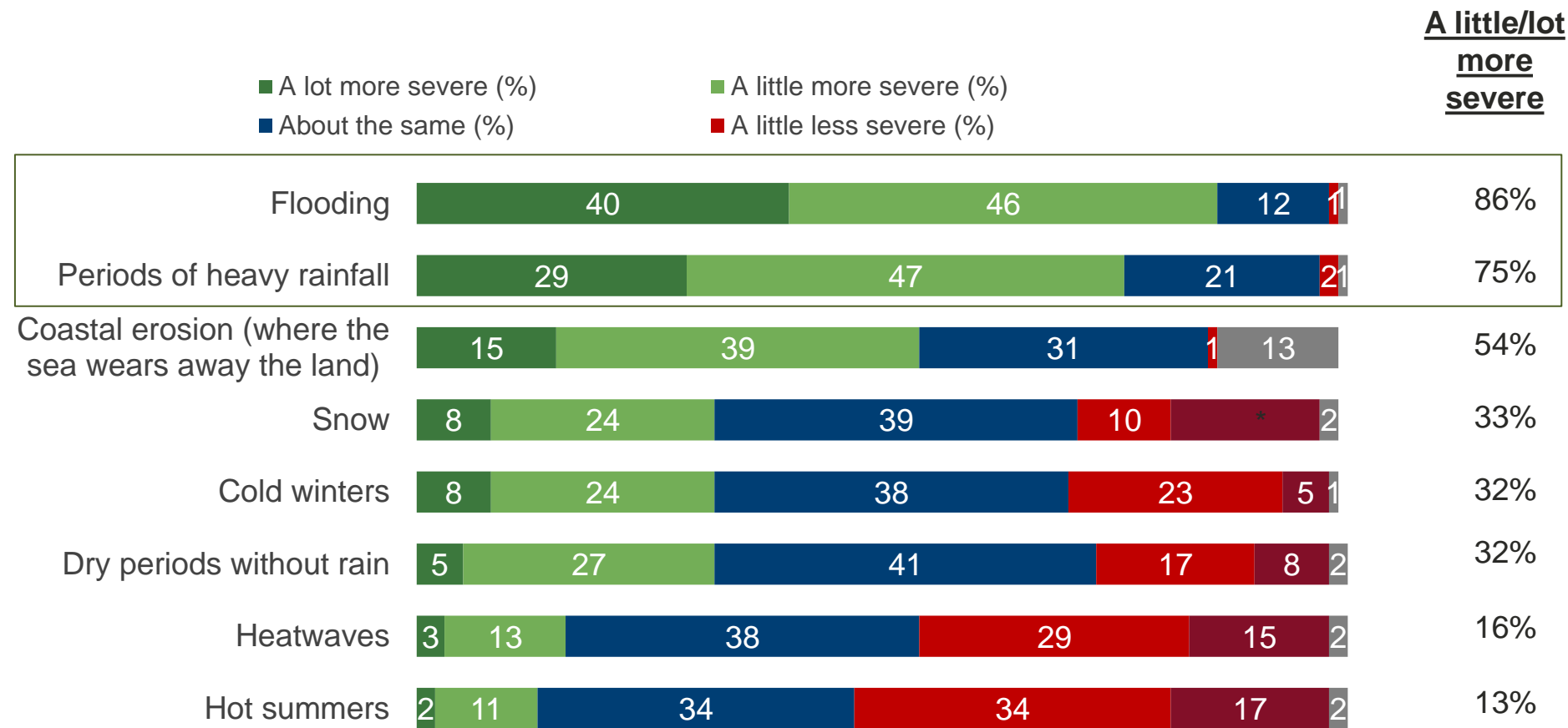
**Q5.** During your life in the UK do you feel the following have become more or less frequent in the UK, or stayed about the same



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# Flooding and rainfall also seen as becoming more severe

**Q.6a**     *And again, during your life in the UK, would you say the following have become more or less severe or stayed about the same?*



Base: All who feel they have or probably haven't seen changes in the UK weather in their lifetime 1892 people aged 16+ in the UK

# The impacts of climate change are seen as uncertain and tend to be seen more as a threat than a benefit

**Q32. To what extent do you agree or disagree with each of the following statements about climate change?**

■ Strongly agree (%)

■ Tend to agree (%)

■ Neither agree nor disagree (%)

■ Tend to disagree (%)

■ Strongly disagree (%)

■ Don't know (%)

It is uncertain what the effects of climate change will be



There are risks to people in the UK from climate change



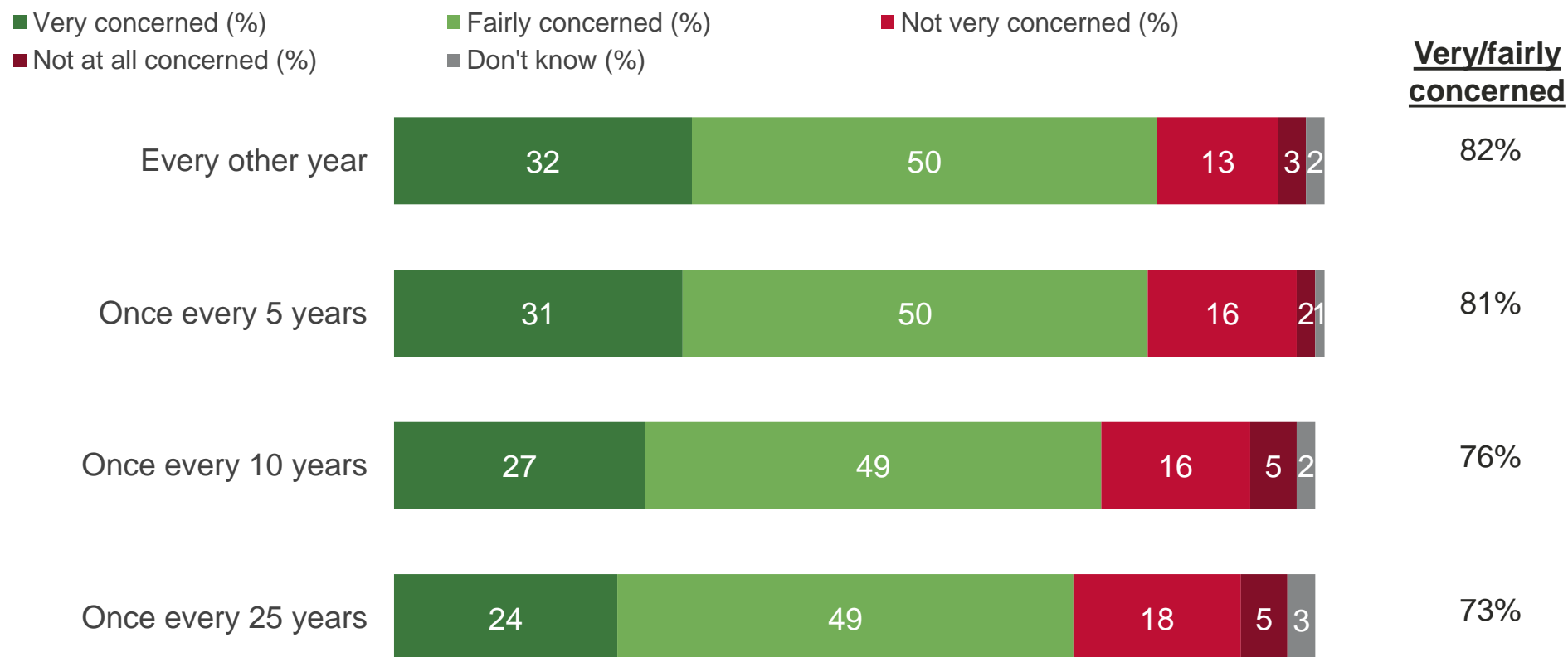
There are benefits to people in the UK from climate change



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# And concern is high regardless of frequency level

Q19. The flooding that affected much of the UK in November 2012 affected an estimated 1,880 properties, caused 4 deaths and is likely to cost insurers around £500 million. The total economic losses were higher. Flooding on this scale in the UK is currently very rare. How concerned, if at all, would you personally feel if flooding of this scale (Nov 2012) became more common, so that it was happening about. . . ? [SPLIT SAMPLES]

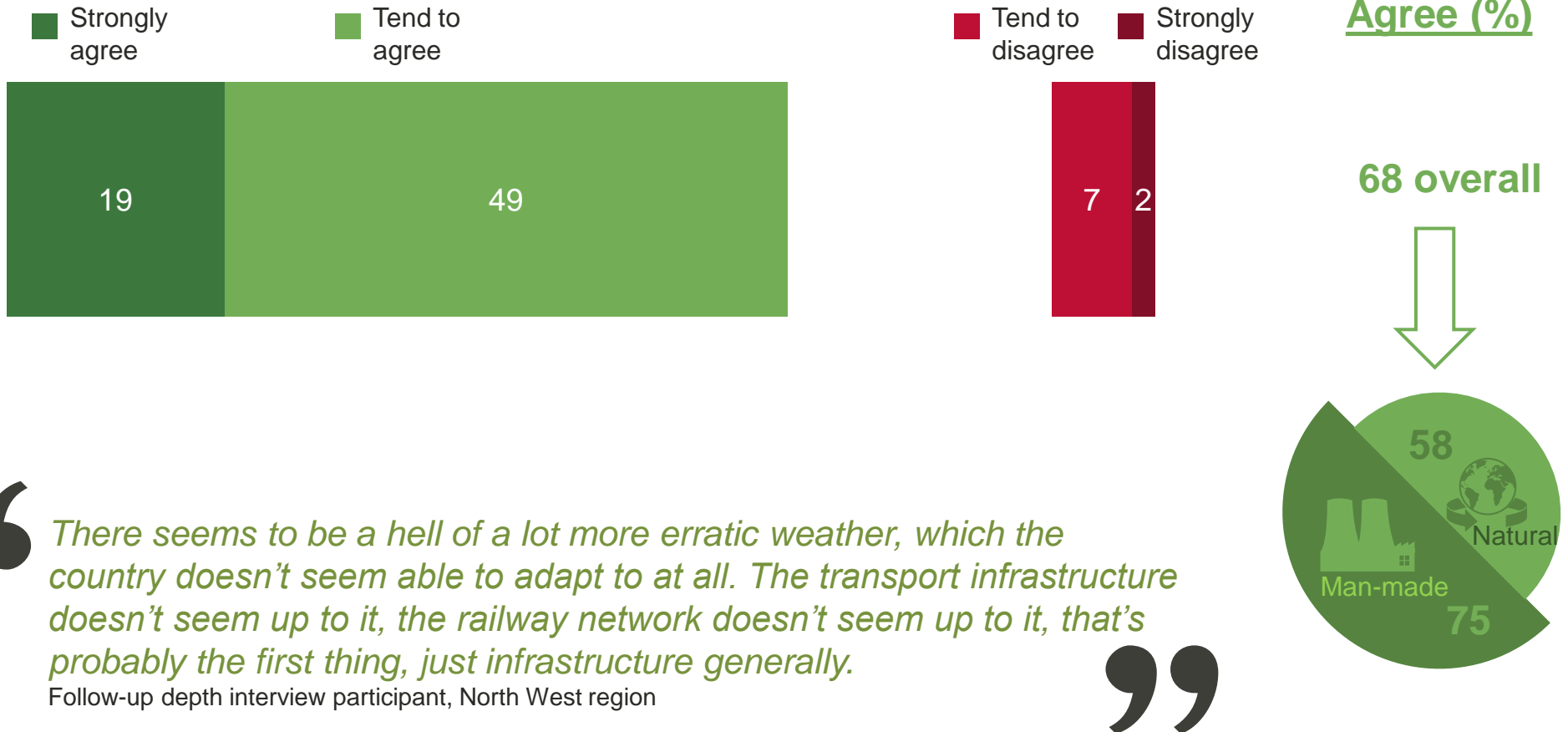


Base: 2,007 people aged 16+ in the UK, each respondent only saw one frequency statement . fieldwork dates: 30<sup>th</sup> Jan - 5<sup>th</sup> Feb 2013

# But, the public believe adaptation is possible - including those who believe climate change is natural

Please indicate the extent to which you agree or disagree with the following statement?

*We can avoid the worst impacts of climate change by planning well for them*



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013



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**Which risks do the public think  
are a priority to prepare for?**

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# When asked to select areas to invest in, people hedge their bets, but vast majority support some adaptation

*Imagine you are running the country and need to decide what the priorities should be in relation to preparing for climate change and coping with the impacts of climate change. You have 15 tokens to allocate to the things that you feel should be prioritised as areas for investment/action. [10 climate impacts shown, devised from CCRA]*

## % of all tokens allocated (top issues selected)

Low lying coasts permanently flooded or eroded by rising sea levels



6%

Droughts causing serious water shortages



9%

More homes flooded by heavy rainfall



9%

Public services disrupted by heavy rainfall



10%

Poor harvests, due to extreme weather, pushing up food prices



12%

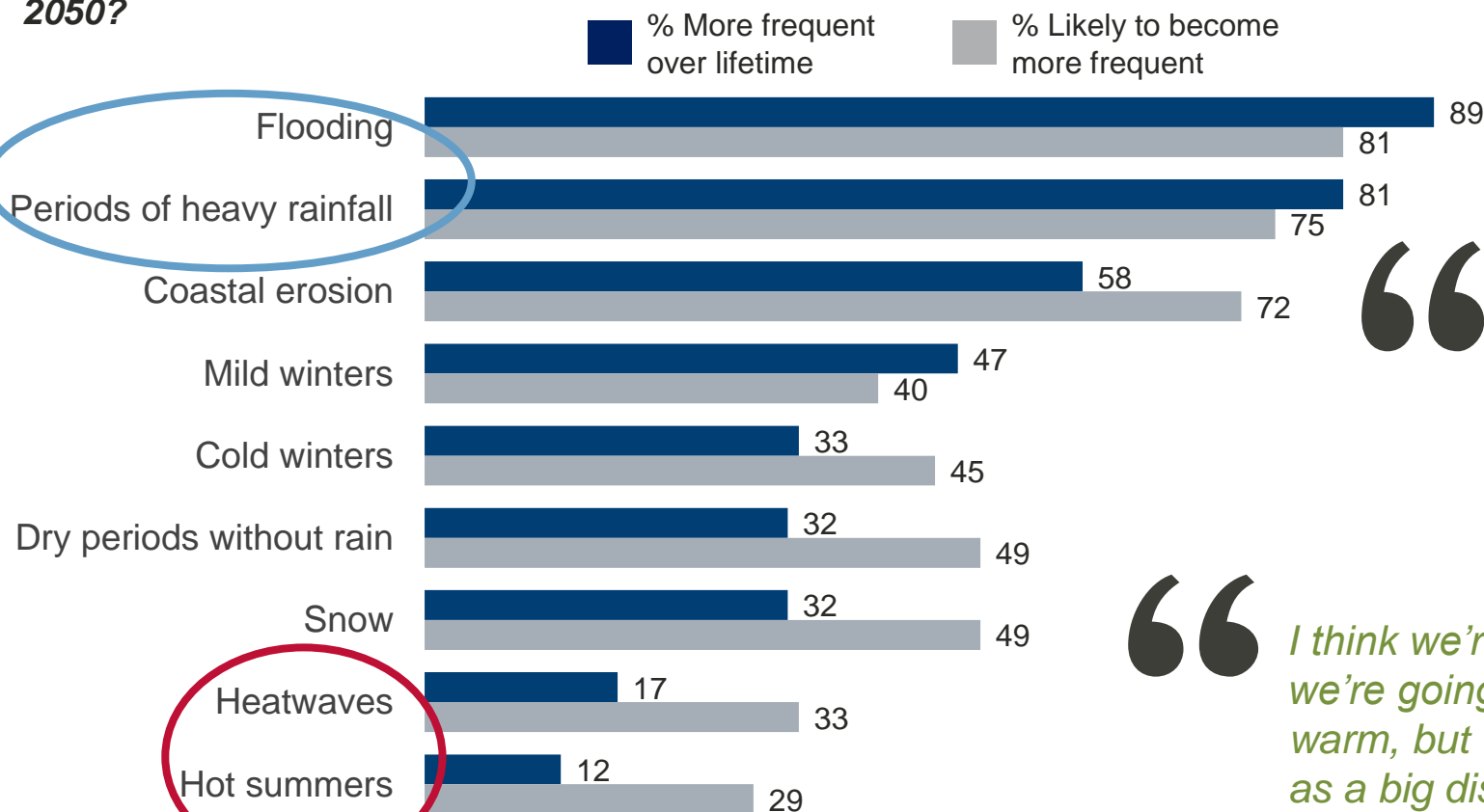
- 'Budget' allocated to 6 different impacts on average and 44% people allocated to 7 impacts or more
- Just 6% did not 'invest' anything

Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# Predictions about weather events tend to be led by personal experience

*During your life in the UK do you feel the following have become more or less frequent in the UK, or stayed about the same?*

*How likely, if at all, do you personally think it is that the following will have become more common in the UK by 2050?*



*“Flooding... It’s increasing all the time, houses being destroyed, it’s happening now.”*  
Workshop participant, Kendal

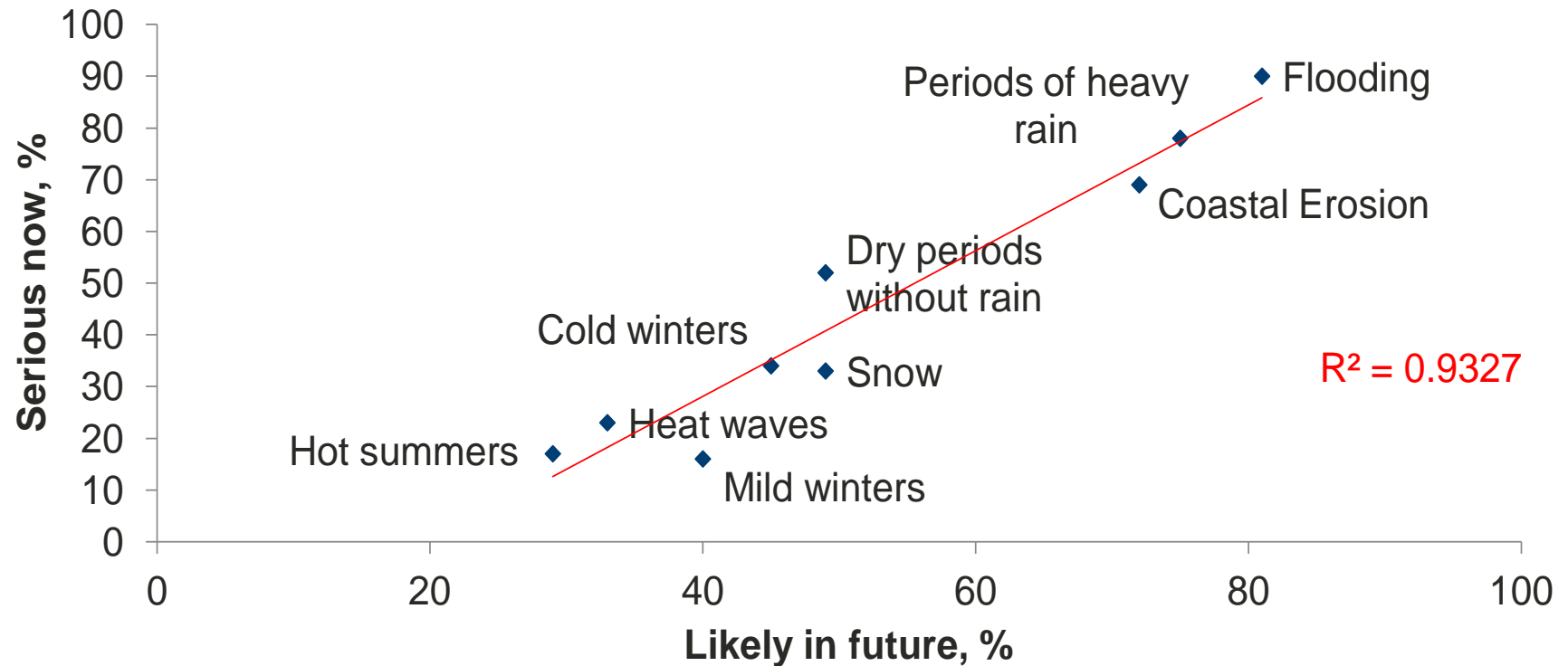
*“I think we’re less convinced we’re going to get really warm, but we see flooding as a big disaster.”*  
Workshop participant, Kendal

Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# Climate risk is a challenging concept to understand or weight up: people base decisions around likelihood on what they believe is a problem now

**Q9. How serious a problem do you think the following currently are for the UK, or do you not think they are a problem at all?**

**Q11. How likely, if at all, do you personally think it is that the following will have become more common in the UK by 2050?**



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# Flooding impacts, higher food prices and species loss seen as most worrying

Q13: From your own perspective, to what extent do you agree or disagree that each of the following will be likely to happen in the UK by 2050?

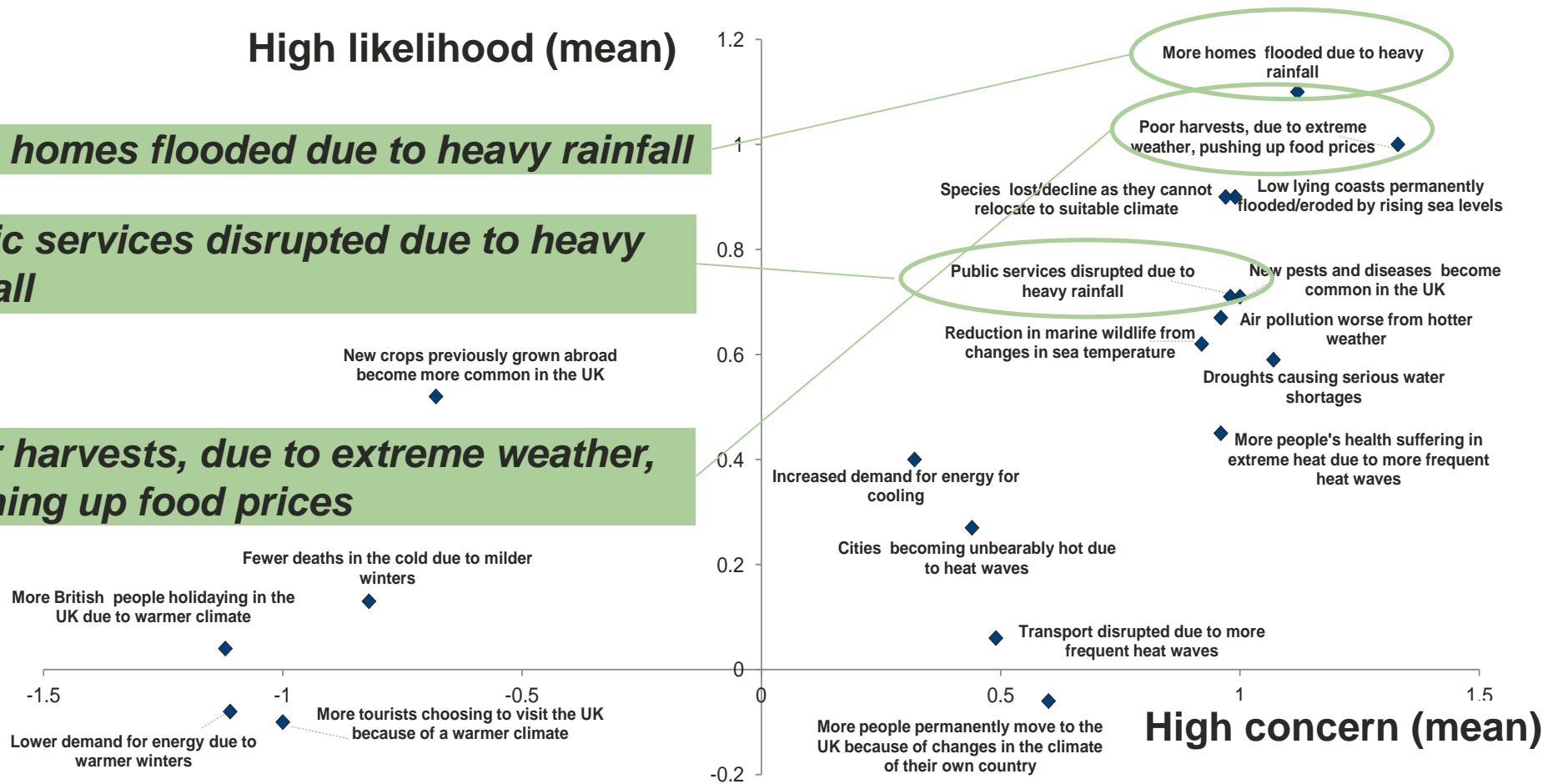
Q14: How concerned would you be, if at all, if the following did happen in the UK?

High likelihood (mean)

**More homes flooded due to heavy rainfall**

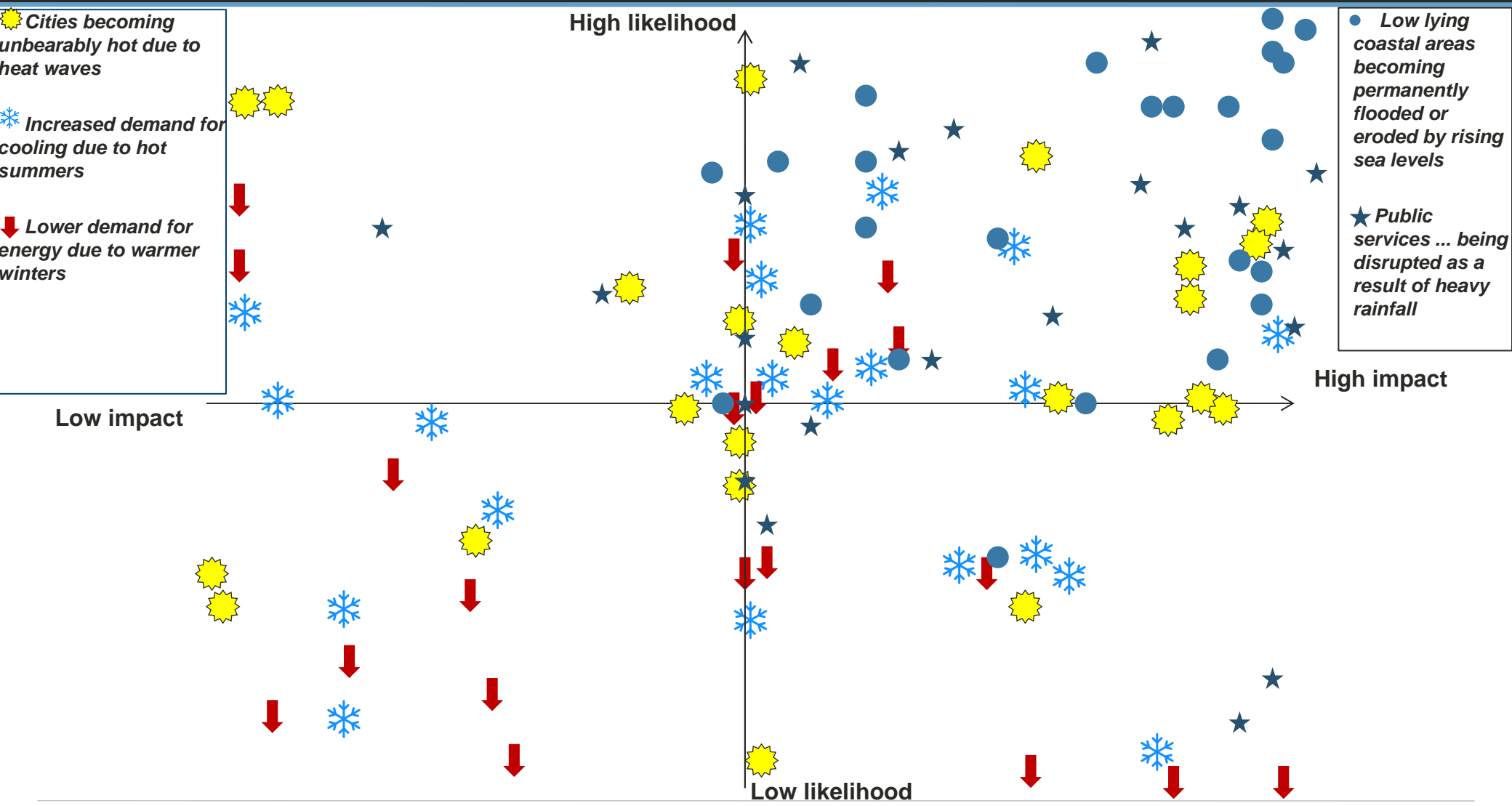
**Public services disrupted due to heavy rainfall**

**Poor harvests, due to extreme weather, pushing up food prices**



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

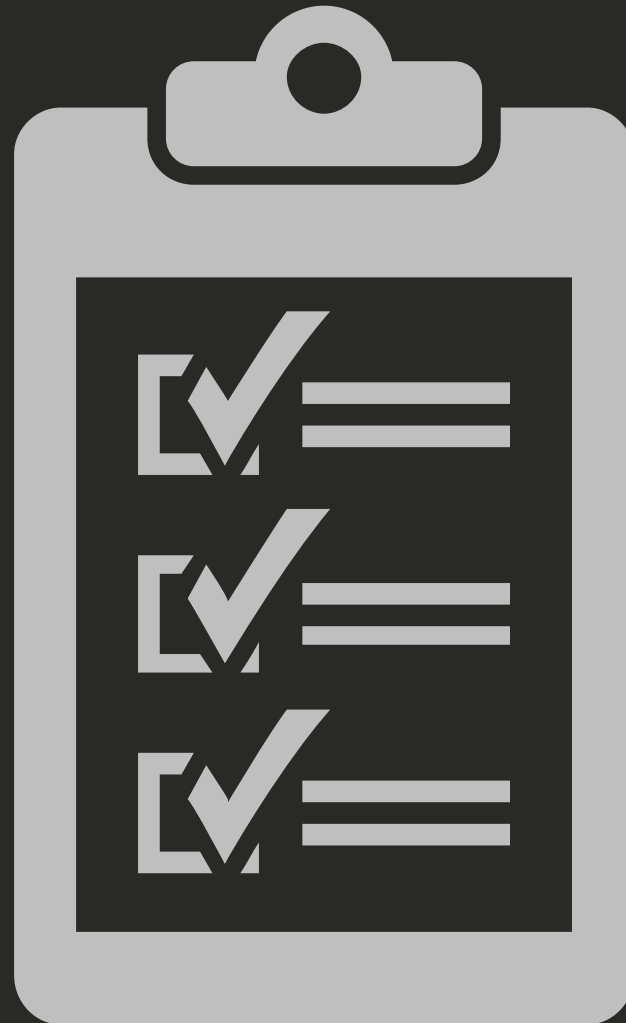
# In the workshops flooding was similarly prioritised, but less consensus on heat related impacts



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**How do the public think  
preparations should be  
prioritised?**

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# Adaptation actions are considered important if...

The workshops showed that the public (across all climate impacts) support specific preparations when the following criteria are met:

1. They are **effective** in **protecting the UK against widespread loss** (whether this is loss of life, financial impact, impact to biodiversity or others);

2. Preparations have a **range of beneficiaries**, including **individuals, business, local** and **national government**.

➤ Climate change **adaptation** is considered **important across all sectors** and all aspects of life

➤ The public therefore support a **holistic** approach



# Eliciting priorities for which groups of people to protect

- Seven **characters** created representing different groups of people and combinations of characteristics e.g.
  - Age
  - Rurality
  - Occupation
  - Life stage
- Participants selected character they thought should be prioritised for protection and explained their choice → understanding of why some groups deemed more 'worthy'



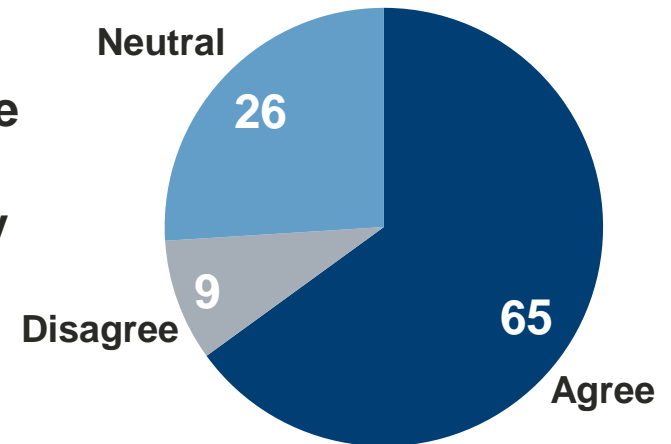
# It's fair that people face different risks, but priority should be protecting the economically active

## Contributors to society



“ *They should prioritise people who are doing more good for the community rather than just helping individuals.* ”  
Workshop participant, Edinburgh

**It is fair that different people will face different levels of risk from changes in the climate because of where they choose to live**



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# Eliciting priorities for which areas to protect

- Posters describing UK floods: 'We can protect towns or country, not both,' says Environment Agency boss
- Participants allocated coastal areas
- Ministers must decide whether to protect "town or country, front rooms or farmland" from flooding because there is not enough money to protect both, according to the chairman of the Environment Agency
- climate risk

## Towns and Cities

At risk of...






**Flooding** **Heat wave** **Drought**

### Impacts for people...

- More premature deaths & hospital visits in hotter weather
- More people affected by water shortages
- More people at risk of flooding
- Fewer winter deaths due to milder winters
- Reduced energy bills as less heating needed in milder winters

### Impacts for business...





- Lose £100 million to £1 billion from reduced staff productivity because workplaces overheat
- Disruption from flooding each year costs £6 million to £52 million more than before
- £500 million more insurance claims every year due to flooding
- £200 million to £1.5 billion's worth of commercial property will become at risk of flooding
- Tourists bring in £8 billion to £11 billion extra every year

### Impacts for environment...

- More river pollution due to spills from overflowing sewers
- Parks and green open spaces less effective at reducing inner-city temperatures

## Countryside and Rural Communities

At risk of...

**Flooding** **Wildfires** **Drought**

### Impacts for people...

- More people affected by water shortages
- More people at risk of flooding
- Increased risk of skin cancer
- People reliant on agriculture and forestry, and isolated areas like Scottish highlands and islands worst affected

### Impacts for business...

- 310 km<sup>2</sup> more agricultural land at risk from frequent flooding
- Increased risk of landslides affecting transport links
- Increased crop yields (e.g. wheat yields may double)
- Changes in types of crops grown in UK (e.g. blueberries, vineyards)

### Impacts for environment...

- Increased risk of wildfires
- Increased risk of animal and plant pests and diseases
- Lower river water levels affect wildlife and navigation
- Over half of peat land habitats at risk of decline
- Some tree species will increase in yield, while others decline

## Coastal areas

At risk of...






**Flooding** **Coastal erosion** **Rising sea temperatures**

### Impacts for people...

- More people affected by water shortages
- More people at risk of flooding
- Low-lying coastal areas in East of England, Wales, Northern Ireland and west coast and islands of Scotland worst affected

### Impacts for business...

- 35 to 60 km<sup>2</sup> agricultural land lost through coastal erosion
- Damage and erosion to coastal roads
- Flood damage of £9 million per year to natural and man-made heritage sites
- Damage to farmed fisheries due to sea level rise and erosion
- £8 billion to £11 billion extra revenue from tourism per year

### Impacts for environment...

- 7 to 36 km<sup>2</sup> beaches lost due to sea level rise
- Loss of protected habitats due to coastal erosion and flooding
- Changes in animal and bird migration patterns
- Native marine species die out and are replaced by non-native species because of warmer seas



# Uncertainty over the ability to protect the coast leads cities and countryside to be prioritised



“There are more people in towns and cities. Industry needs to be protected and people need to be protected. Cities are the hub of the surrounding countryside so if they go down everything goes with it.

Workshop participant, Kendal

“I think it affects people’s livelihoods directly and impacts on community life. If rural communities become an unreliable place to live then people will leave and they will dwindle.”

Workshop participant, Kendal

[The] coast has been eroding for years – what makes them think they can stop it? You’re just throwing good money after bad. I don’t think they’ll ever control the seas.

Workshop participant,  
Great Yarmouth

”

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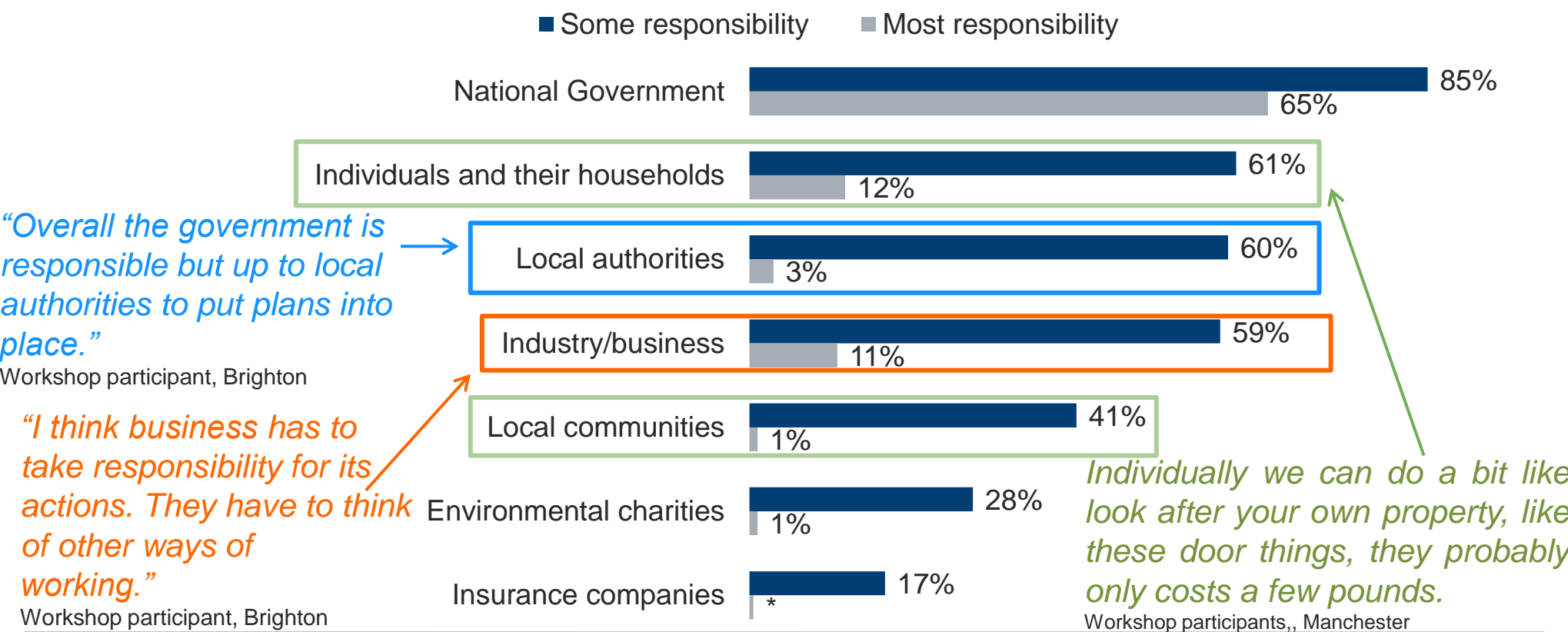
# Where does responsibility lie for helping the UK to adapt?

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# Public look to national government, whilst also seeing important roles for individuals, business and local authorities

*Please indicate which, if any, of the following groups you think should be responsible for taking action to deal with the consequences of climate change in the UK?*

*And please now select up to three of the following that you feel should have most responsibility for taking action to adapt to climate change in the UK?*

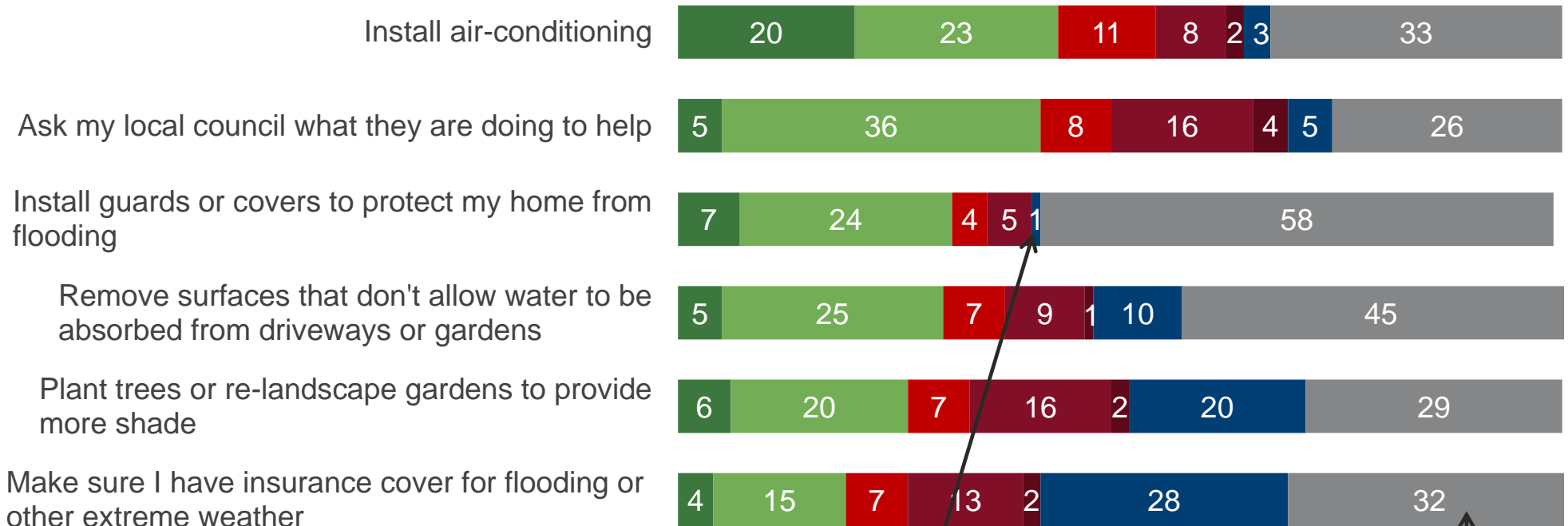


Base: All those who think more than one group should be responsible for taking action to deal with climate change

# BUT, most wouldn't take individual adaptation actions, including actions that might be more relevant to them

**Q24. Here are some other changes that people might make to adapt to changes in the climate. Which of the options best describes what you personally think about each of these?**

- I don't really want to do this (%)
- I've thought about doing this, but probably won't do it (%)
- I've tried doing this, but I've given up (%)
- I don't think this is relevant to me (%)
- I haven't really thought about doing this (%)
- I'm thinking about doing this (%)
- I've done this (%)



Equally low for those that think they are at risk or who are at risk of flooding (c. 3%)

Still 29% for owner occupiers

Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013

# Slightly more think that responsibility for protecting houses from floods should lie with government (than individuals)

**Q18a.** *And now please consider the following statements and indicate the extent to which you agree or disagree with them?*

- Strongly agree (%)

■ Neither agree nor disagree (%)

■ Strongly disagree (%)
- Tend to agree (%)

■ Tend to disagree (%)

■ Don't know (%)

Protecting my home from a flood is my responsibility



The government is responsible for protecting properties against flooding



Base: 2,007 people aged 16+ in the UK, fieldwork dates: 30<sup>th</sup> January - 5<sup>th</sup> February 2013



# Conclusions



# Key findings

- The public support investment in adaptation - even if it means preparation is made for events that never happen
- The public understand, and accept, that different areas and people face different risks
- Greatest priority is placed on protecting critical resources and areas of economic importance
- The public conceptualise risk based on current events and past experiences – it is a challenge for them to envisage a different future
- Flooding is therefore a key concern, but warmer temperatures less so
- Responsibility should mainly be with government but there is a role for householders and business – there may be a future challenge to increase individual engagement with personal actions



Version 1 | Internal Use Only

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**Further details can be found at: [www.ipsos-mori.com/PREPARE](http://www.ipsos-mori.com/PREPARE)**