

KING'S College

LONDON

Misperceptions about climate change and the natural environment

We're very wrong on many climate change and environmental facts...

A new study on misperceptions of climate change and environmental issues shows how much we get wrong about the challenges facing our planet...

- We underestimate how record-breaking global temperatures now are: we guess only 12 of the last 22 years are among the hottest 20 on record since 1850, when all 20 hottest years have been in the last 22 years.
- We hugely underestimate plastic waste in the environment: we think it's 49% when it's 79%; we think that 26% has been recycled when it's only 9%.
- We hugely overestimate the impact of air travel on global greenhouse gases: we think air travel contributes 20% of global greenhouse gases when it's 2%.
- BUT we don't realise how much skipping just one transatlantic flight would save in greenhouse gases, while overestimating the impact of recycling.
- Only a third of people correctly guess that animal populations have declined by 60% since 1970.

...we largely accept the scale of threat – but think *other people* don't

But our attitudes show most of us recognise the seriousness of the threat to the global climate – and that we mostly see the lack of concern as caused by other people, not us:

- Most of us **reject Donald Trump's past assertion that global warming is an expensive hoax** (69% disagree), although one in eight do agree (12%).
- And most of us agree with the UK Parliament declaration that we're facing a climate change emergency (67% agree), although again 11% do not agree.
- We think other people are not worried enough about climate change (73% agree) BUT only 16% of us say we're not worried enough ourselves.
- Only one in five of us (20%) think it's too late or too difficult to prevent a climate change emergency, but we think that half of the public in general (49%) believe this is the case.
- Six in ten (62%) of us believe that if other people had more hope that we could prevent a climate change emergency, they would change their lifestyles or urge government to act – and 38% of us say that more hope would mean we ourselves would be more likely to act.

We underestimate just how unusual global temperatures have become...

We asked people how many of the hottest 20 years on record have been in last 22 years, based on World Meteorological Organization estimates that go back to 1850...

On average we guess that <u>12 of the 20</u> hottest years on record were in the last 22 years

... while actual data shows that <u>all 20</u> of the hottest years on record have been in the last 22 years



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Only a quarter of the public correctly guess 20, while one in five people think 5 or fewer of the last 22 years are the hottest on record

Source: https://public.wmo.int/en/media/press-release/wmo-climate-statement-past-4-years-warmest-record

We hugely underestimate how much plastic waste is still in the environment

We asked people, of the 6.3 billion tonnes of plastic waste that have been created globally, what percentages have been recycled, incinerated or are in the environment in landfill or as litter...

	too low	% point difference	too high	Guess	Actual
Recycled			+17	26	9
Incinerated			+13	25	12
In the environment	-30			49	79



Source: Production, use, and fate of all plastics ever made, Roland Geyer et al, *Science Advances* 19 Jul 2017: Vol. 3, no. 7, e1700782, DOI: 10.1126/sciadv.1700782 https://advances.sciencemag.org/content/3/7/e1700782.full

Base: 1,084 online interviews with British public aged 16-75 August 2019

... and we are very wrong about the source of greenhouse gas emissions

We asked people what percentage of total greenhouse gas emissions around the world they thought a range of sectors contributed in 2014... and we hugely underestimate electricity and heat production, and overestimate air travel



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Source: Carbon dioxide (CO_2) emissions by sector or source, World: https://ourworldindata.org/grapher/carbon-dioxide-co2-emissions-by-sector-or-source

Base: 1.084 online interviews with British public aged 16-75 August 2019

We are also very wrong on how much impact different actions have on greenhouse gas emissions. We particularly overestimate the impact of recycling and underestimate impact of flying, and of having children



Q. From this list of options, which most reduce an individual's green		CO ₂ Tonnes	
Recycling as much as possible	52%	Actual rank 7	saved 0.2
Living car free	42%	2	2.4
Eating a plant-based diet	31%	5	0.8
Replacing a typical car with a hybrid	29%	6	1.1
Buying green energy	27%	4	1.5
Avoiding one transatlantic flight	25%	3	1.6
Having one fewer child	21%	1	58.6*
Hang-drying their clothes	19%	8	0.2
Replacing lightbulbs	8%	9	0.1
None of these 2% * This is calculated by quantif based on historical rates, bas		ying future emissions of descendants	
Don't know 6%	Source: Institute of Physics	'The most effective individ	

Base: 1,084 online interviews with British public aged 16-75 August 2019

https://phys.org/news/2017-07-effective-individual-tackle-climatediscussed.html and https://iopscience.iop.org/article/10.1088/1748-9326/aa7541 Only 33% of the public correctly think that the population sizes of mammals, birds, fish and reptiles in the world has fallen by 60% since 1970, which is the WWF estimate – although only 7% think populations have stayed about the same Q. Which of these do you think is correct: between 1970 and 2015 the population sizes of mammals, birds, fish and reptiles in the world...?





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Source: Living Planet Report 2018: Aiming higher: https://www.wwf.org.uk/sites/default/files/2018-10/wwfintl_livingplanet_full.pdf

Base: 1,084 online interviews with British public aged 16-75 August 2019

Despite our misperceptions, our attitudes show we do think we're facing a climate change emergency – but it's other people that are the problem... Only 12% of Brits agree with Donald Trump's statement that 'global warming is an expensive hoax' – while 69% disagree, including 50% who strongly disagree.

67% agree with the text of UK Parliament resolution that we're facing a climate change emergency

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
Global warming is an expensive hoax	4 <mark>%</mark> 8%	17%	19%		50%	<mark>3</mark> %
We are facing a climate change emergency, with the threat of the irreversible destruction of the environment within our lifetimes		34%	3	3%	19%	7% 4% 3%



Base: 1,084 online interviews with British public aged 16-75 August 2019

Very few people (16%) say they themselves are not worried enough about climate change to change their lifestyle or urge government to act

...but many more (73%) agree that other people are not worried enough

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know
<u>I am not worried</u> enough about climate change to change my own lifestyle or urge government to act		20%	2	9%	33%	6 2%
<u>People are not</u> <u>worried</u> enough						

People are worried er about climate change to change their own lifestyles or urge their governments to act





Only one in five people (20%) say they think it's too late and difficult to prevent a climate change emergency – but many more (49%) think that other people think it is



People think it's too late and too difficult to prevent a climate change emergency

<u>11%</u> 38%	27% 17% <mark>5%</mark> 2%
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Base: 1,084 online interviews with British public aged 16-75 August 2019: sample split between questions to provide c540 interviews for each

There is less difference on hope: 38% agree that if they had more hope that we could reduce climate change, they would be more likely to act - and even more (62%) think more hope would make other people more likely to change their own lifestyle or urge government to act



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If people had more

hope that we could reduce climate change they'd be more likely to change their own lifestyles or urge governments to act



Technical details

- Survey results based on 1,084 online interviews conducted by Ipsos MORI with representative sample of British public aged 16-75 conducted between 16th-20th August 2019 and for question on hottest years 1,099 online interviews with representative sample of British public aged 16-75 conducted between 23rd-27th August 2019.
- Samples weighted by key demographics to be representative of British public.
- Samples for attitudinal questions comparing respondents' own attitudes with people in general are split to provide two representative samples of c540 interviews for each.
- Sources for actual data included on each slide.
- Contact: Professor Bobby Duffy, bobby.duffy@kcl.ac.uk

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