Spotlight

HOW PEOPLE OF COLOUR EXPERIENCE AND ENGAGE WITH CLIMATE CHANGE IN BRITAIN

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Acknowledgments

This project was jointly led by Dr Charles Ogunbode (University of Nottingham) and Dr Jeremy Kidwell (University of Birmingham), with crucial contributions to analysis and writing by Nick Anim, Dr Amiera Sawas and Serayna Solanki. The research was funded by a Research England QR-PSF award made through the University of Birmingham. We would like to thank the following members of our project steering group: **Zarina Ahmad** (University of Manchester), **Sara Jane Nii-Adjei** (Christian Aid), **Meena Rajput** (Greenpeace), **Reuben Fakoya-Brooks** (REED Ecological Network/British Ecological Society) and **Dr Neema Begum** (University of Nottingham). We would also like to thank **Rebecca Hughes** and **Laura Mitchell** for assistance with data analysis.

Data and re-usable code used to produce this report can be found online at https://github.com/climate-experiences/spotlight-report.

Cite as: Ogunbode, C. A., Anim, N., Kidwell, J., Sawas, A., Solanki, S. (2023). Spotlight - How people of colour experience and engage with climate change in Britain. Topline findings from a national survey conducted in March 2022. University of Birmingham and University of Nottingham.

Design: Elise de Laigue, Explore Communications - www.explorecommunications.ca

Cover images: 4-life-2-b/Shutterstock.com, Will Durrant/Shutterstock.com, Loredana Sangiuliano/Shutterstock.com, muratart/Shutterstock.com, Pav-Pro Photography Ltd/Shutterstock.com, 4-life-2-b/Shutterstock.com, Brian Minkoff/Shutterstock.com, 10 10 (CC BY 2.0), DarSzach/Shutterstock.com, Gorynvd/Shutterstock.com.

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TERMINOLOGY DISCLAIMER

‘People of colour’

This project addresses a gap in UK climate change research: the lack of representation of voices and experiences of people of colour. Research like this, that confronts matters of justice, representation, and diversity, need not be set up as a zero-sum game, where success is measured by the ability to track and represent every possible kind of social marginalisation. Therefore, we hope that this study will inspire further research and conversations both within the communities we engage in this report, as well as with other minority groups that are not represented in our dataset. We also hope this report will inform current debates among policy-makers both locally and nationally.

Language is always evolving. There is much debate in UK society on what terms should be used or avoided and why, including the use of terms like ‘BAME’, ‘BIPOC’, and ‘Ethnic Minorities’. In discussions within our research team, we observed valid critical commentary with respect to all of these terms, coming from the persons and communities they are intended to describe. Ultimately, no terminology is free of shortcomings. Rather than regard this as a point of frustration, we find value in the ongoing - never foreclosed - conversations around how to use language in specific, inclusive and emancipatory ways.

For this report, we have decided to prioritise the term ‘people of colour’. Using this term, we recognise the many contestations and possible problems it carries. We also acknowledge that no single categorisation or catch-all term will ever be perfect, as the very idea of a catch-all term can conceal or discount diversity within. It is important to maintain an awareness of the diversity of socio-economic, historical, and cultural experiences amongst individuals and communities of different identities/ethnicities. Accordingly, our uses will always be provisional.

Executive summary

Climate change is a globally devastating phenomenon. Our response must therefore be a globally inclusive and creative transformation. Around the world, people of colour are disproportionately affected by climate change. Some of the most devastating effects occur outside the UK, such as extreme floods in Nigeria, Pakistan and Bangladesh; droughts in the African Sahel, cyclones in the Caribbean, and deadly heatwaves across South Asia. Our research shows that these global experiences of climate change are felt indirectly by people of colour residing in the UK. In addition, people of colour also feel the climate change impacts that are directly affecting the UK, such as severe heatwaves and flooding.

The interconnections between climate change and racial (in)justice are becoming increasingly visible, especially in international political arenas where climate-vulnerable countries have been calling for the delivery of promised, but delayed, loss and damage finance. In the UK, there are also growing calls for a just and equitable response to climate change. Yet, work remains to be done in scholarship and education to help the British public recognise how cross-country disparities in greenhouse gas emissions are linked with British colonial legacies including historic forceful expropriation of resources from people of colour. Our research acknowledges the need to address intersecting racial and climate (in)justices, and to promote climate justice as a guiding principle for all attempts to develop a climate-resilient world.

In attempting to support these aspirations, this study addresses a gap in research, particularly the understanding and personal experiences of climate change by people of colour in the UK. We engaged with 1008 adults across the UK who identify with non-white ethnic minority backgrounds. The sample was evenly distributed across ethnicity, age, political leaning, region, religious affiliation and household income. As a team of social scientists and practitioners - drawing broadly from psychology, geography, theology, education, policy, campaigning and ethics - we analyse the findings through a mix of approaches to generate insights into how people of colour are thinking about and responding to the climate crisis.

The key findings include:

People of colour are highly aware of climate change and its causes.

92% believe climate change is happening and 84% say that it is caused by human activity. 83% are fairly or very worried about climate change.

Most (61%) believe that they have experienced climate change.

Our respondents wrote about their experiences of heatwaves, erratic weather and flooding, as well as the negative impacts of these events on their day-to-day lives. The data indicate that people of colour generally recognise that climate change is connected with their experiences with extreme weather.

London, UK - September 2019. Photo: 4-life-2-b/Shutterstock.com

A large majority (85%) are really worried about the impact climate change is having on areas outside of the UK.

When respondents described their experiences of climate change vulnerability, their accounts often included links to impacts in other countries that disproportionately experience climate change impacts like droughts, floods, severe heat, cyclones and the resulting health, social, economic and cultural harms suffered by friends and relatives. This suggests that people of colour may feel a strong affinity with dialogues around international climate finance and support for vulnerable countries. Heat, in particular, is a widely connective experience, with respondents relating strongly to heatwaves in the UK and in countries abroad with which they have heritage links.

Most people of colour (63%) are unfamiliar with the term 'climate justice'.

Despite feeling strong connections to some of the world's most vulnerable places, most respondents indicated that they were unaware of the term climate justice prior to participating in this study. However, being unaware of this specific terminology does not equate to disinterest in matters of justice. Most respondents (>60%) agreed that climate change has worse impacts on the poor; that climate change will exacerbate existing inequalities within and between countries; and that people from frontline communities should have greater representation in decision-making about climate solutions. Roughly half of our respondents (49%) agreed that climate change is driven and exacerbated by exploitative systems like colonialism and capitalism.

There is strong support for climate policies that involve lower personal costs.

Some of the policies that showed the highest levels of support among our respondents (over 80% on average) were those aimed at reducing climate change by incentivising low carbon transport and renewable energy. There was much lower support for measures that increase personal household costs, such as increasing the price of electricity to curb consumption (37%).

Most people of colour say they are, personally, acting on climate change.

74% of respondents told us they had changed their lifestyles, including by avoiding food waste (83%), saving energy at home (72%), and switching to active transport over cars (65%).

High proportions of people of colour feel strongly connected to nature (92%) and are supportive of nature-based solutions to climate change like rewilding (67%).

Our sample was also highly spiritual (82%) and religious (87%). The data shows that (already high) levels of concern regarding climate change increases even further for respondents who reported high levels of spirituality, nature connection and/or religiosity.

Given the novelty of the research represented here, we hope that this report and the underpinning data can help to serve as a catalyst for sparking bigger conversations among a diverse range of groups, including policy-makers, community organisers, and activists. Included alongside the details of the survey findings are explainers that unpack key themes around climate justice and environmental racism. We hope that this format helps to emphasise the intrinsic, if often submerged, links between matters of climate (in)justice and the work of climate mitigation and adaptation. As an appendix to this report, we also provide some reflections around conclusions that arose from our process of analysis of this data as a research team. We share this learning around some of the unique challenges facing research and practice around climate justice, in the hope that it may help to energise and support future efforts to enable this kind of work more effectively.

Background

Why study people of colour's climate experiences?

The UK is a diverse and multicultural country, where approximately 18% of the population of England and Wales identify as an ethnic minority, according to the 2021 National Census. Many of these individuals identify as having strong links to other countries, especially those from 'Global South' countries and regions including, but not limited to Africa, the Caribbean, South Asia, and the Middle East. These links may be direct, especially for recent immigrants and to particular communities or family relations, but heritage and diasporic experience can also function in more indirect ways. Whether recent or historic, the experience of connection can be equally potent, and is often interwoven with the understanding and experience of climate change.

Many of these 'heritage' countries and regions are more sharply impacted by climate change than the UK. Take Pakistan for example; 2% of the UK population (approximately 1.3 million people) identify as British Pakistani. Pakistan is frequently ranked in the top 5 most vulnerable countries to climate change. It has experienced devastating, consecutive, climate-related disasters, including historic flooding in 2022 which resulted in the displacement of over 33 million people. As with many diaspora communities, British Pakistanis play a critical response role by sending home remittances to help family members deal with the devastating impacts of climate change. Our survey data shows that international links can be a crucial part of the way that climate change feels 'close to home' for some people of colour. Despite this, and similar scenarios being a reality for many people of colour, there has been no systematic national research with people of colour in the UK to understand how they relate to the climate crisis.

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Glasgow, UK - November 2021. Photo: Bruno Mameli/Shutterstock.com

WHAT IS CLIMATE JUSTICE?

Climate change framing has historically been led by the **climate sciences** (within fields like physics, chemistry, atmospheric and earth sciences). This was formalised in the Intergovernmental Panel on Climate Change (IPCC), which began in 1988, and produces periodic reviews of all the climate-related evidence generated by hundreds of scientists. The IPCC's reports are considered the primary avenue for informing governments, industries and the public on climate change. They are also often taken to be a comprehensive view of climate science. Yet for all this comprehensiveness, IPCC reports have tended to focus on climate change exclusively as a technical problem, and have only recently begun to include elements of social, cultural, economic and political factors. One attempt to address this gap was through **environmental economics**, which sought to understand how the economy would be affected and should adjust in light of climate change. However, many important aspects of climate change response and experience are difficult to quantify (such as community knowledge, religion and spirituality) and this approach can fail to engage with the broader socio-economic context and differential impacts of climate change.[1] **Climate justice is one way of bringing attention to the ways that social factors, especially inequality, are a core part of the causes and consequences of climate change. It seeks to reveal the intersecting nature of climate change both as a *crisis* (in terms of impacts and harms) and also in terms of the ways that societies can seek more diverse *solutions*.** It emphasises the idea that climate change is entangled with centuries of racial injustice, colonialism and social inequalities. Climate justice also seeks to equitably recognise the knowledge and experiences of Indigenous peoples, Global South communities and marginalised communities in formulating more sustainable solutions. Though not always prominent in public debate, conversations about climate justice have been ongoing since the start of the IPCC process. A key milestone for climate justice came when a collective of international communities, civil society organisations and environmental activists organisations defined the Bali Climate Justice Principles - a set of 27 principles to bind the global movement for climate justice in 2002.

We see, time and time again, that the people who tend to experience the worst climate and environmental risks and impacts are also those experiencing intersecting patterns of racial and class marginalisation. The Working Group II report of the most recent IPCC recognizes that vulnerability to climate change is driven by "patterns of intersecting socio-economic development, unsustainable ocean and land use, inequity, marginalisation, historical and ongoing patterns of inequity such as colonialism, and governance (high confidence)". Delayed acknowledgement of this fundamental context impairs necessary action and policy change to mitigate and adapt to climate change. Climate change is no longer a future risk. It is an urgent and dangerous reality confronting people and ecosystems worldwide.[2]

WHAT HAS COLONIALISM GOT TO DO WITH CLIMATE CHANGE?

Unpacking the relationship between climate and colonialism starts with the way in which European colonial powers, including the British Empire, "industrialised" themselves and maintained global political and economic power. This caused a 'status quo' of world progress – this can be described as the determination of economic growth-driven consumption that's not acknowledged the limits of Earth; continued new technologies which lead to more and faster consumption; and unequal exchange whereby historical colonial empires extracted and profited off resources from the countries they colonised, through slavery or cheap labour which is continued today in 'Global North / Global South' dynamics. This is a combination that drove and continues to drive massive greenhouse gas emissions - causing global warming.

Now, when we look at the countries being hit the worst by rising temperatures and extreme weather patterns - it's mostly the countries that were colonised, or it's poor countries that did not industrialise in those ways. Locked into these power imbalanced relationships also locks in former colonies to develop their economies and societies along similar patterns of the Global North; leaving them with limited finance, resources and international support to mature sustainable alternatives and definitions of progress.

Recommended literature:

- Perspectives on a Global Green New Deal Curated by Harpreet Kaur Paul & Dalia Gebrial
- Confronting injustice: racism and the environmental emergency. A report from Greenpeace and the Runnymede Trust.
- 'Deal or no deal?' Exploring the potential, limits and potential limits of Green New Deals by Leon Sealey-Huggins
- A Billion Black Anthropocenes or None by Kathryn Yusoff
- Carbon colonialism must be challenged if we want to make climate progress in The Conversation
- Climate Change Is Racist: Race, Privilege and the Struggle for Climate Justice by Jeremy Williams
- The Unbearable Heaviness of Climate Coloniality by Farhana Sultana

London, UK - October 2021. Photo: Loredana Sangiuliano/Shutterstock.com

Unpacking the relationship between climate and colonialism starts with the way in which European colonial powers, including the British Empire, "industrialised" themselves and maintained global political and economic power.

CASE STUDY

How climate change and racial (in)justice are felt in the UK

One key contributor to climate change, urban air pollution, is increasingly seen as a social justice issue in a number of countries around the world, with megacities such as Cairo, Delhi and Beijing highlighted as places where air pollution disproportionately impacts the health for poorer citizens. This is also a reality in many of the major cities of the UK such as Manchester, Leicester and London. Urban ethnic minority communities are generally among the worst affected by air pollution, which causes approximately 40,000 deaths in the UK each year. In London, Black African and Caribbean people are disproportionately exposed to harmful and illegal levels of air pollution. Long-term exposure to nitrous oxides emitted by road traffic contribute to several health conditions that affect people of colour (especially Black people) at higher rates, including heart disease,[3] diabetes,[4] fibroids[5] and endometriosis.[6] This is painfully illustrated by the tragic death of 9-year-old Ella Adoo-Kissi-Debrah in 2013. Ella had severe asthma and lived near the busy South Circular Road in Lewisham, South London. In a landmark report, the coroner identified air pollution as a significant contributing factor to her death. This is now a key campaigning issue for Black Lives Matter UK, since much of the industrial expansion in the UK's cities seems to be taking place in or near to boroughs with high rates of ethnic minority residents.[7]

London, UK - February 2017.
Photo: Brian Minkoff/Shutterstock.com

This issue, sometimes also described as 'environmental justice', is directly relevant to climate change. Road transport, which causes much of the UK's air pollution, for example, caused about 25% of emissions in 2019.[8] Importantly, even though the negative effects of road traffic emissions disproportionately affect Black people, the latest government statistics tell us that Black people are more than twice as likely as white people to live in a household with no access to a car or van.[9] So, just like with climate change impacts abroad - the people who are most affected, are often the least likely to have caused them. **There is an urgent need to explore how people of colour experience climate impacts - like urban air pollution - in the UK, to establish whether they face specific vulnerabilities which should be addressed in policy and practice.**

Mainstream climate change actors in the UK - scientists, environmental civil society organisations, politicians and sustainability professionals - have been criticised for failing to engage the relationship between climate change and racial injustice. This failure can also be indirect, such as when campaigns are organised around the worldviews, knowledge and voices of a white majority while leaving little room to explore and enact solutions deriving from the perspectives of people of colour.[10] This replicates a common pattern; where the people who have done the least to cause climate change, and are living on the frontlines of the impacts, are also being overlooked in discussions about what the solutions should be.[11]

London, UK - July 2019. Photo: Elena Rostunova/Shutterstock.com

How is climate change and racial (in)justice present in UK climate action?

We don't have many insights from the UK, yet, because researchers have failed to look at their own backyard. People of colour have been historically under-represented in public opinion polls and social science surveys.[12] There has never been a more opportune time to centre the perspectives of people of colour in climate dialogues and policy. Racial injustice has increasingly become a prominent topic in the UK's public consciousness due to the devastating and disproportionate impacts of COVID-19[13] and police brutality on people of colour. The killing of Black people in the USA by police, including George Floyd, Ahmaud Arbery and Breonna Taylor has galvanised global protests and also focused attention on police violence and killing of Black citizens here in the UK, including Stephen Lawrence and most recently Chris Kaba, along with the disproportionate focus/structural violence of police 'stop and search' procedures on Black people in the UK during the pandemic.[14]

Representation in climate action and expertise in the UK is a live debate. People of colour are severely under-represented in decision-making about climate policies and actions at all levels. Only 5% of the UK's environment and climate professionals identify as being from an ethnic minority background - compared with 13% across other professions.[15] In a recent study of climate policy and action events in Bristol, researchers found that ethnic minority voices make up around 3% of climate policy and action discussions,[16] speaking only 1-2% of the time, on average. In contrast, white men spoke for 64% of the time, on average.

How can climate solutions be effective and locally appropriate if they exclude millions of people? This is especially important if there may be specific vulnerabilities due to racial and class marginalisation. As mentioned earlier, people of colour are disproportionately affected by air pollution because they tend to live in deprived urban areas; they can also be over-represented in low-paid[17] and precarious jobs,[18] and as a result often don't have adequate resources to escape or develop resilience in the face of severe weather impacts like flooding and heatwaves.[19]

We conducted this study to shine a light on how these and other sets of circumstances faced by people from ethnic minority backgrounds shape climate change experiences and engagement among people of colour.

Methodology

Survey design and data collection

- We developed a set of survey questions to capture climate change-related experiences, perceptions, emotions, actions and policy preferences among UK people of colour.
- We pre-tested the questions online with a small number of respondents (***N*** = 180) to make sure that the final survey made sense to the people taking part.
- A larger online sample of ethnic minority UK residents aged 18 years or over (***N*** = 1,008) were recruited to participate in the final survey in March 2022. The fieldwork was conducted by Qualtrics Research Services.

London, UK - July 2021. Photo: Jon Fitton/Shutterstock.com

Who took part in the survey?

Table 1. Demographic profile of the survey respondents.

		% of sample
Gender	Female	51.4
	Male	46.8
Age	18 – 29	43.9
	30 – 39	29.3
	40+	25.9
Ethnicity	**Asian**	**50.2**
	Indian	16.8
	Pakistani	14.1
	Chinese	7.1
	Bangladeshi	5.1
	Other	7.1
	Black	**29.7**
	African	20.5
	Caribbean	8.5
	Other	0.7
	Mixed	**15.9**
	White and Black Caribbean	6.3
	White and Asian	4.4
	White and Black African	2.5
	White and Arab	0.4
	Other	2.3
	Middle Eastern or Arab	**2.3**
	Latinx or Hispanic	**1.1**
	Other	0.9
Education	University degree or higher	62.9
	Other	36.2
Annual household income	£20,000 or less	23.7
	£21,000 - £40,000	34.5
	£41,000 - £60,000	21.9
	Over £60,000	19.9
Religious affiliation	Christian	33.9
	Muslim	26.9
	No religion/Atheist	16.1
	Hindu	7.1
Party affiliation[20]	Labour	48.7
	Conservative	11.7
	Green	6.0
	Liberal Democrat	5.9
	Other	2.1
	Undecided/Ineligible/Prefer not to say	18.2

Where are our respondents based?

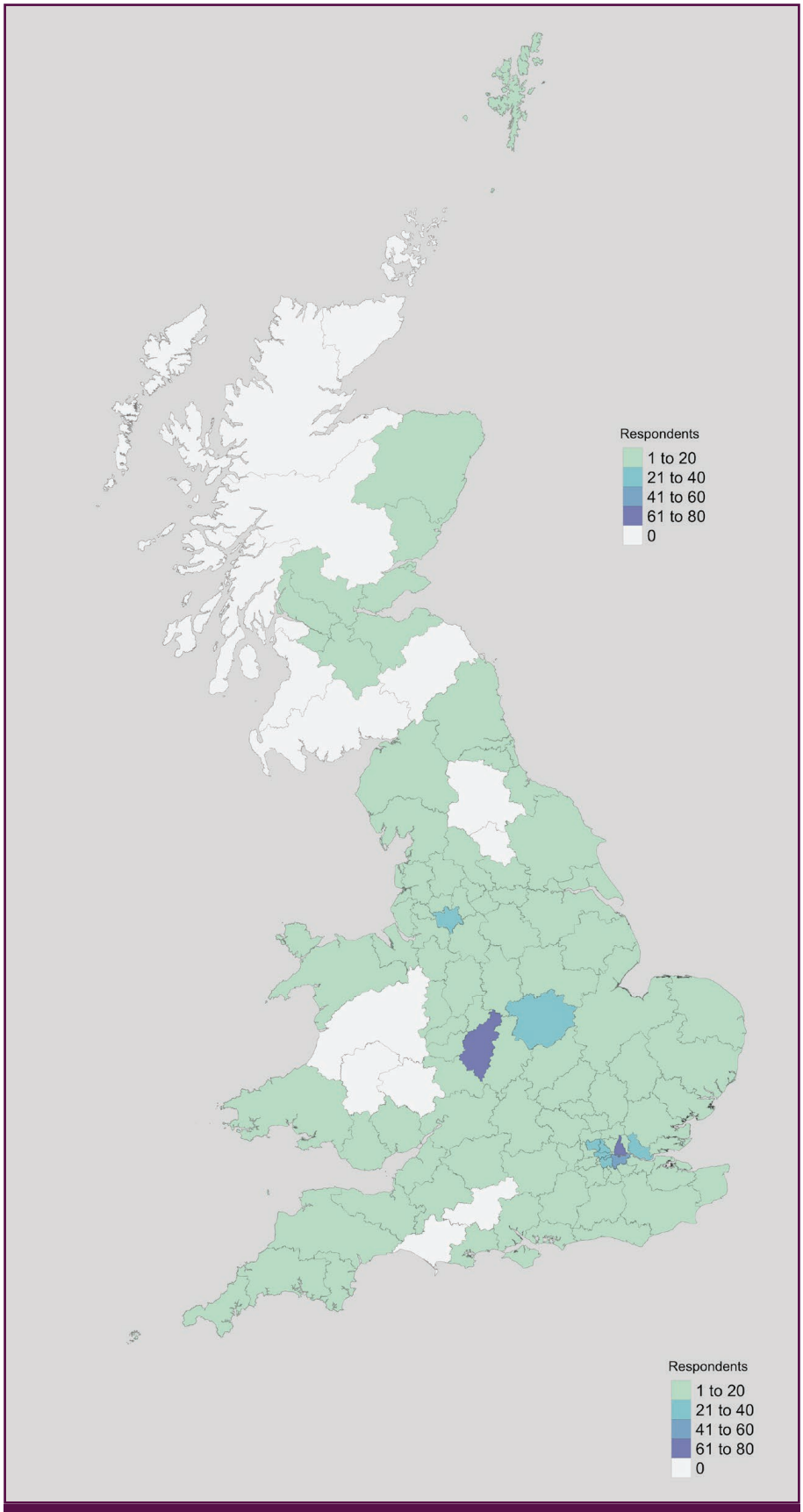


Figure 1. Concentration of survey respondents

What did we learn from this study?

What people know and think about climate change as an issue

An overwhelming majority of UK people of colour (92%) believe that climate change is happening. Specifically, **64% of respondents** in our survey said that they **believe that climate change is definitely happening** and 28% said that they believe climate change is probably happening. A further 84.3% of respondents reported that they believe that climate change is partly or entirely caused by human activity (Figure 2). This pattern of climate beliefs is similar to what has been observed in the general UK public.[21]

Most respondents also felt they are informed about climate change, with 43% indicating that they felt very informed and 53% feeling somewhat informed.

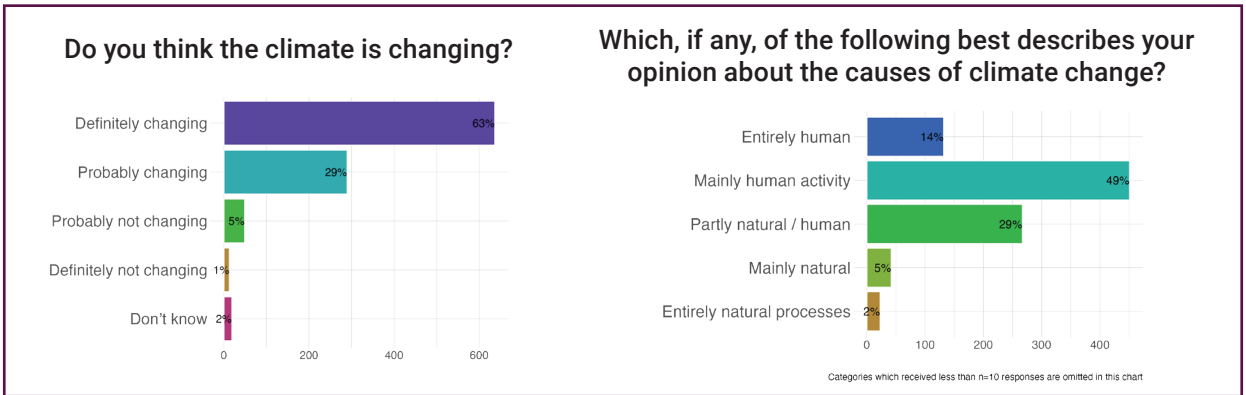


Figure 2. Beliefs about reality and cause of climate change

We also explored what **specific associations UK people of colour have with the term climate change**. When asked to state the first thing that comes to their mind when they think of climate change, most respondents referred to the **weather**. They described processes and events relating to weather change, changes in the seasons, or extreme weather events like flooding, storms and heatwaves. Another common theme was **pollution**. This was often discussed in terms of plastic pollution or carbon dioxide emission. Many people made reference to **fossil fuels**, the greenhouse effect, **negative impacts** on humans, nature and natural environment, **negative feelings** about climate change (e.g., sadness, fear, worry), **insufficient action** on climate change by the government or society in general, and **destruction of the planet**.

What climate change impacts people of colour have experienced

Most respondents in our survey (61%) said that they have experienced climate change. When asked to describe this, a common theme was **changes in weather and the seasons**, for example weather becoming colder, wetter, or more erratic, and seasons changing or becoming less predictable. Many people also reported that they have experienced **severe or extreme weather events**, like heatwaves, storms, drought, wind, abnormal weather, wildfire and natural disasters within and/or outside the UK. **Experiences of rising temperatures and heat** was a

London, UK - September 2019. Photo: muratart/Shutterstock.com

further salient theme, with many describing personal experiences of increasing temperatures, as well as severe heat or heatwaves, hotter summers, and warmer winters. Finally, many people also described climate change impacts on their health (e.g., heat stroke), property and infrastructure (e.g., damage to homes due to coastal erosion and severe weather), energy security (e.g., via disruptions to supply and availability of energy), and plants and animals.

What signs of climate change have you experienced?

"Seeing more rain and storms in summer, winters not being as cold some years" (Woman, 30, London)

"I have always loved the season's every one of them for how unique they are, I am 44 now and have noticed the length of some seasons changing when the flowers are coming up later or earlier" (Woman, 44, Bury Saint Edmunds)

"In UK increased flooding, in UK winter are later spring seems to be disappearing and we have cold and summer and autumn. As a gardener I see the effects on my vegetables and flowers." (Woman, 43, Wales)

Figure 3. Perceived personal experience of climate change (Quotes from respondents)

When we delved deeper into how our respondents have specifically been affected by extreme weather, over **two-thirds** reported that they **have experienced a heatwave** in the UK that caused significant discomfort and/or sleep disruption. Another **one in four** reported **experience of severe snow** that disrupted their commute, and **one in five** respondents **have experienced flooding** in their local area (Table 2). These accounts track with several high profile severe weather events occurring across the UK such as the 2018 spring cold snap (or 'Beast from the East'),[22] 2018 summer heatwave,[23] 2022 storm Eunice,[24] and recurrent flooding affecting different parts of the country.

What recent extreme weather experiences feel most significant to you?

"In England in 2018 there was a long hot heatwave. I remember this well because I was pregnant with my youngest child and had just moved home. It was just so hot. We couldn't get any sleep as it was too hot and all of the fans had sold out." (Woman, 38, Nottingham)

"Heavy rainfall causing flooding in King's Heath causing disruption to travel and getting to work." (Woman, 22, Birmingham)

"Recent storm Eunice, ripped tiles off my roof, my greenhouse was blown away. Happened in Wales." (Woman, 43, Wales)

Figure 4. Personal experiences with extreme weather (Quotes from respondents)

Not only are events like flooding and heatwaves expected to increase in the UK because of climate change,[25] personal experience of extreme weather (particularly flooding) has also been shown to be related to the way people perceive and respond to climate change risk.[26]

The frequency of reported extreme weather experiences among the current sample of UK people of colour is broadly similar to that observed in a 2019 survey of the general UK population.[27] However, **heatwave exposure may be a particularly important climate risk for people of colour**, with 86% of our sample reporting prior experience of heatwaves causing discomfort or sleep disruption to them compared with 55% of respondents in the 2019 survey of the general UK population.

Cipinang Melayu, Jakarta, Indonesia - February 2017.
Photo: Kompas/Hendra A Setyawan (HAS) (CC BY-NC-ND 2.0)

While the majority of reported extreme weather experiences did not affect people's infrastructure, ability to stay living in place or their access to food, small numbers said it did. And on our current trajectory with warming and failure to invest in adaptation as a country, the numbers of people facing these impacts could increase rapidly.

Table 2. Self-reported exposure to extreme weather events by respondents in the study.

Have you ever experienced any of the following events within or outside the UK?	Yes, happened to me in the UK	Yes, happened to me outside the UK	No, has never happened to me
Flood damage to your home	9.7%	9.1%	52.0%
Flooding in local area	20.5%	9.2%	45.8%
Relocation due to flood risk or erosion	4.6%	5.9%	68.6%
Heatwave [health affected]	17.1%	12.5%	50.9%
Heatwave [discomfort/being unable to sleep]	61.8%	26.3%	14.3%
Heatwave [disruption to travel or working]	29.1%	15.9%	41.7%
Extreme snow [damage to personal property]	11.1%	5.6%	60.0%
Extreme snow [disruption to travel or working]	25.0%	7.5%	44.7%
Water restrictions due to low rainfall	13.8%	10.3%	55%
Restrictions to food supply due to extreme weather	10.8%	7.6%	63.3%
Wildfire [disruption to travel, loss of natural habitat]	4.5%	6.1%	61.7%

Our survey also asked respondents to specify whether they experienced these events whilst in or outside the UK. As the table below shows, the majority of climate change experience was perceived to have been experienced *within* the UK, but experiences elsewhere were nonetheless significant, particularly with heatwaves. As one respondent reported: *"I was born and raise[d] in California until my mid-twenties and I have witnessed an increase in drought and wildfires. What used to be a "major" fire incident is now anticipated every year in multiple locations across the state."*

How people perceive the threat posed by climate change

Research tells us that people's assessment of risks is affected by the immediacy of personal experience, which can intensify concern about an issue and lower the psychological distance a person feels towards that issue.[28] Climate change risks are often perceived as temporally (occurring in a distant future), spatially (occurring in places far away from the perceiver's location), and socially distant (mainly affecting people of a different social standing or social circumstances), as well as uncertain (unlikely to affect the perceiver in reality).[29] Psychological distance is linked to lowered motivation to act on climate change and is a key consideration when seeking to promote climate action and policy support in the UK, where majority of the public think people abroad will be more severely affected by climate change.[30]

At first glance, this pattern of distancing appears to be replicated among our sample where respondents generally rated the threat posed by climate change to relatives and family living outside the UK as very or extremely serious, while they rated the threat posed to themselves, their family in the UK, or their local area of residence in the UK as moderate (Figure 5). However, it is important to consider this in the context of the fact that many people of colour in the UK have heritage and familial links with parts of the world that are objectively more vulnerable to severe impacts from climate change than the UK. Further, climate change impacts can feel proximate even when they are not locally experienced depending on the value attached by the perceiver to areas or entities that are being impacted. Therefore, this pattern of responding does not mean that climate change is 'psychologically distant' in the conventional sense for people of colour in the UK. **The majority (83%) of respondents reported that they are fairly or very worried about climate change.** A similar proportion (85%) also indicated that they worry about the effects of climate change in places outside the UK (Figure 6).

Many indicated that they were worried about climate impacts on the world in general.

Roughly 70% of our respondents said that they were born in the UK, but the birthplaces of others ranged widely and heritage links are a common element of the places people worry about. When asked where they worry about, many mentioned specific places like Australia, Bangladesh, Jamaica, India, and Nigeria. Others simply referred to entire regions like Africa, Asia, the Middle East or polar regions. Many indicated that they were worried about climate impacts on the world in general. The most frequently occurring reason for worrying about the effects of climate change in places outside of the UK was awareness of climate-related disasters and extreme weather events occurring in these locations (19% of responses[31]). For example, respondents cited incidents of hurricanes in the Caribbean, wildfires in the United States and Australia, and flooding in India. A second most common reason was concern about family members living abroad, especially in countries that are vulnerable to climate impacts (11%), followed by concern about wider impacts of specific places being severely affected by climate change (9%). For example, many respondents expressed concern about the global effects of the ice caps melting.

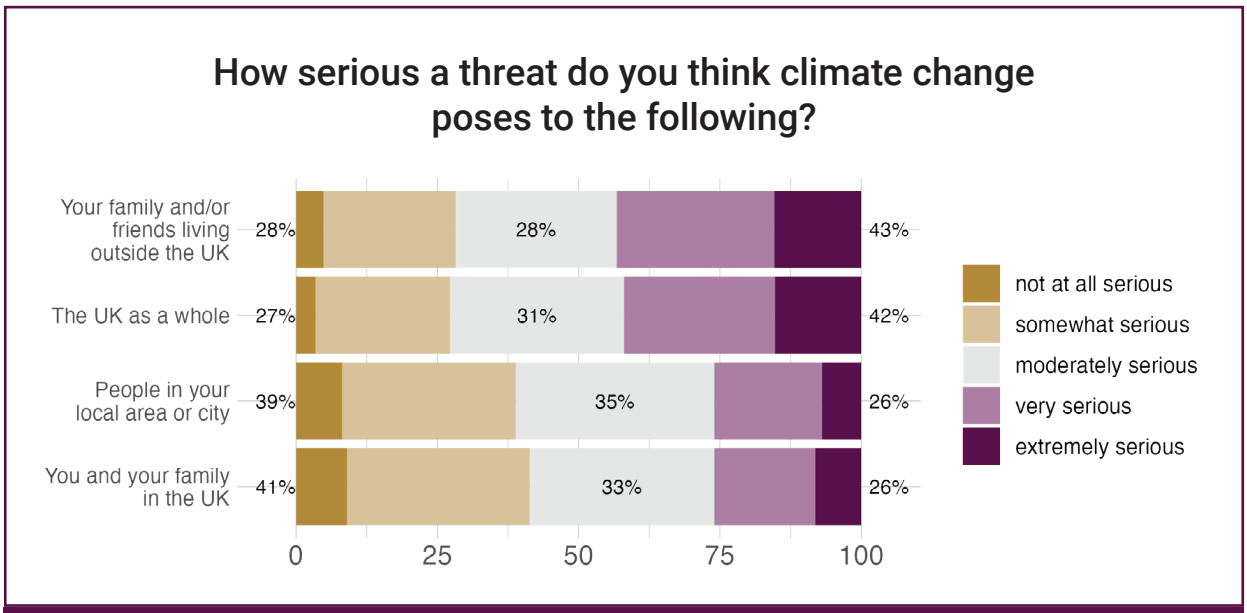
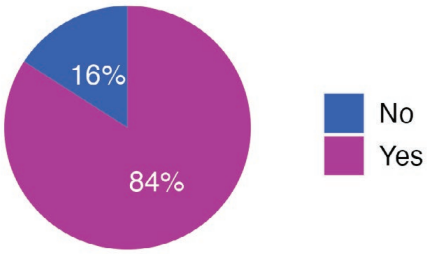


Figure 5. Perceived severity of threat posed by climate change

Palangka Raya, Central Kalimantan, Indonesia - 2015. Photo: Aulia Erlangga/CIFOR (CC BY-NC-ND 2.0)

Are you worried about the effects of climate change in places other than the UK?



Where do you worry about and why?

"I am worried about Bangladesh as that is where my family are originally from." (Woman, 24, London)

"Nigeria and Africa in general. Only lip service is being given to this phenomenon." (Man, 63, Newcastle)

"India and the increasingly sweltering summers – many die each year but it's getting worse. Apart from my immediate family, all my relations reside in India." (Woman, 43, London)

Figure 6. Worry about effects of climate change in places outside the UK (Quotes from respondents)

What people of colour know and think of climate policies

In public discussions, climate change policy tends to fall into two categories: policies that seek to stop climate change from happening ("mitigation") and policies that seek to reduce the harms caused by climate change ("adaptation"). A further typology involves policies aimed at incentivising (pull measures) or disincentivizing (push measures) activities that have a negative impact on the environment. In this study, we observed the highest levels of support for climate change mitigation policies and pull measures, particularly investment in public transport (85%), subsidies for electric vehicles (80%) and renewable energy (78%). These are policies that aim to reduce climate change by incentivising low carbon transport and energy production. There was also a high level of support for adaptation, particularly in the form of using public money to prepare the UK for negative climate change impacts (77%).

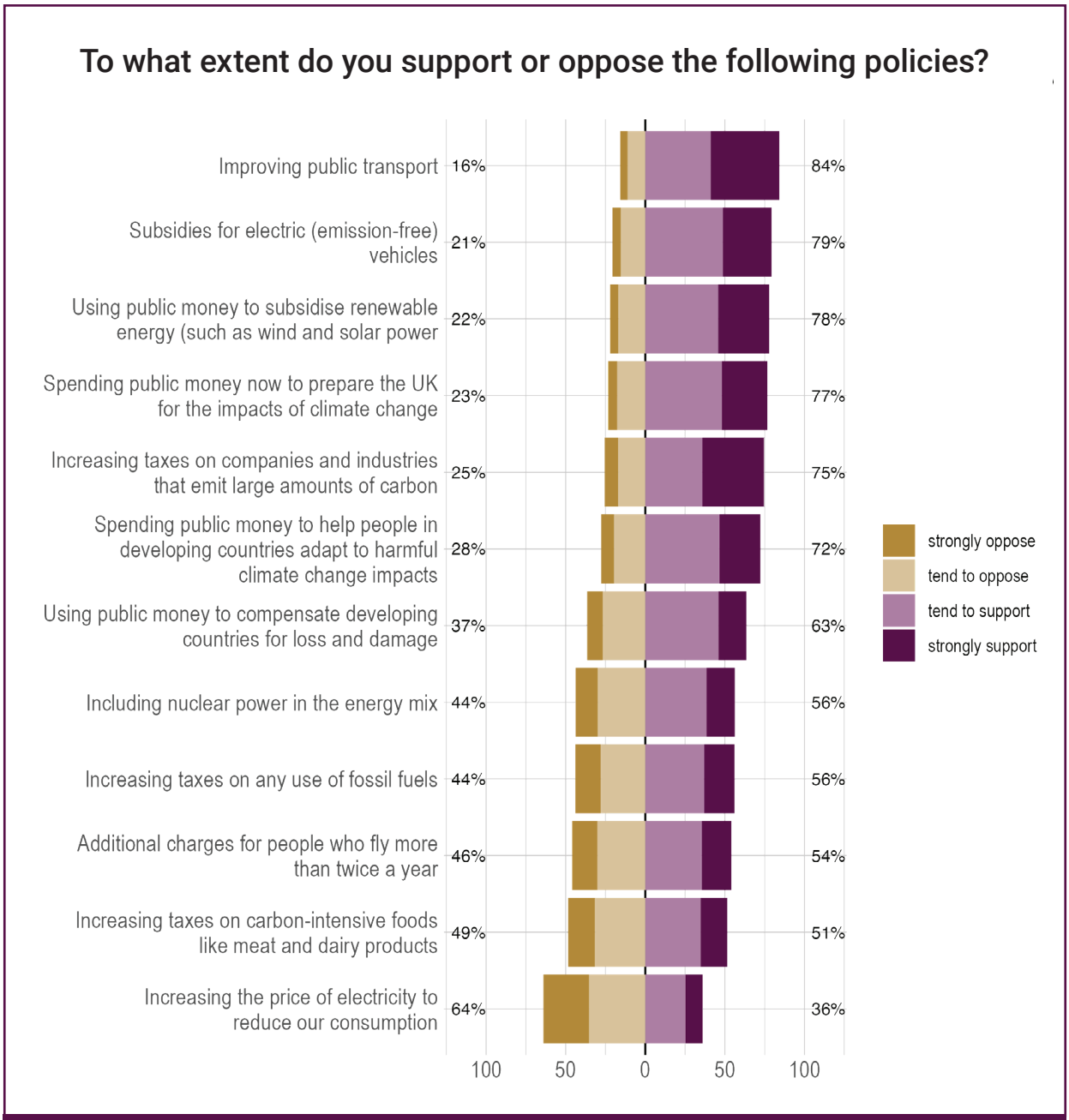


Figure 7. Support for climate policies

London, UK - September 2019. Photo: Julian Stallabrass (CC BY 2.0)

Push measures, in contrast, especially those involving personal financial costs, received lower levels of support. The lowest level of support was observed for increasing the price of electricity to curb consumption (37%). Only a small majority indicated support for increased taxes on meat and dairy products (52%), frequent flyers (54%), and fossil fuels like petrol, diesel and gas (56%). Some caution must be exercised in interpreting these results, however, solely in terms of attitudes toward climate change considering the broader social and economic context at the time of data collection. People of colour appear to be more adversely impacted by the rising cost of living in the UK. Half of Black or Black British (47%), and one-third of Asian or Asian-British adults (33%) interviewed by the Office for National Statistics (ONS) in early 2022 reported that their household cannot afford an unexpected expense compared with 28% of white adults.[32] For ethnic minority families already struggling with insufficient budgets to cover food and energy bills, the intersection of socio-economic disadvantage and the personal costs of climate policies illustrates an important dimension of climate change that is often missing in policy discussions. Proposed climate solutions, not just climate change, can disproportionately impact the everyday life of people of colour.

What people know about climate justice

There is growing recognition among policymakers that effective and sustainable climate solutions cannot be achieved by focusing on science and technology alone. Climate change affects different groups of people unevenly. The resulting injustices need to be addressed in ways that are fair and equitable.[33] The concept of climate justice is a combination of knowledge and practice, originating from international networks of frontline communities (i.e., those affected first and worst by climate change). It reframes climate change discourse in a way that sharpens focus on social impacts, outcomes and justice concerns. It aims to serve as

London, UK - September 2019. Photo: 4-life-2-b/Shutterstock.com

a framework for reducing further harm, loss and damage to communities and groups that are already disproportionately affected by ongoing climate change impacts.

We found that **63% of our sample had never heard of the phrase climate justice** (Figure 8). Out of those who had, only 3% felt they knew a lot and 9% a fair amount.

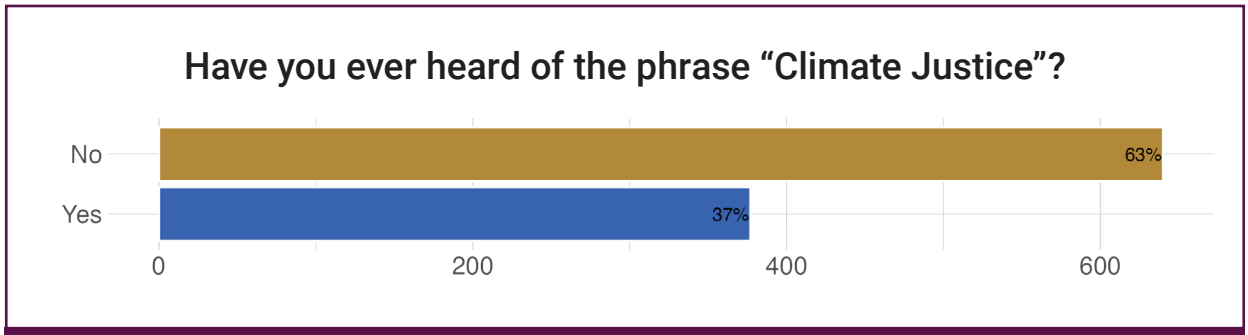


Figure 8. Awareness of climate justice

Given how many people indicated that they weren’t aware of “climate justice” as a concept, we were interested to know what it meant to those with some experience of the term. We asked people to tell us what they thought that “climate justice” meant, and got a wide variety of answers. A large number of answers were focused around **taking action** and bringing about **fair dealing**. Many respondents made reference to **“accountability”** with this being represented in the form of **distributive justice**, accountability for those who are responsible for climate change and accountability to those who suffer the consequences. Forms of accountability were also varied, but included mention of **compensation**, **restoration** of nature and resources, **punishment** for highest contributors to emissions and **protection** to those who are most vulnerable to climate impacts.

To further get a sense of how people feel about climate justice despite not having heard of the term - we explored people's thoughts about some ideas that often feature in discussions of the concept (Figure 9). **Most respondents agreed that climate change has worse impacts on the poor (70%), that climate change will exacerbate existing inequalities within and between countries (60%), and that people from frontline communities should have greater representation in decision-making about climate solutions (60%).** Conversely, there was a seeming lack of conviction among the sample regarding the gender injustices of climate change with roughly equivalent proportions of the sample agreeing, disagreeing with, or being undecided about, the notion that climate change disproportionately affects women around the world. Similarly, only a minority of respondents agreed with the statement "climate change disproportionately affects people of colour around the world" (41%). The latter result accords with findings from a 2020 survey by Christian Aid which found that only a third of the general population of British adults recognise that climate change disproportionately affects people of colour around the world.[34] Nearly half of respondents in our study agreed that climate change is linked with colonialism and capitalism (49%).

> **Climate change affects different groups of people unevenly. The resulting injustices need to be addressed in ways that are fair and equitable.[33]**

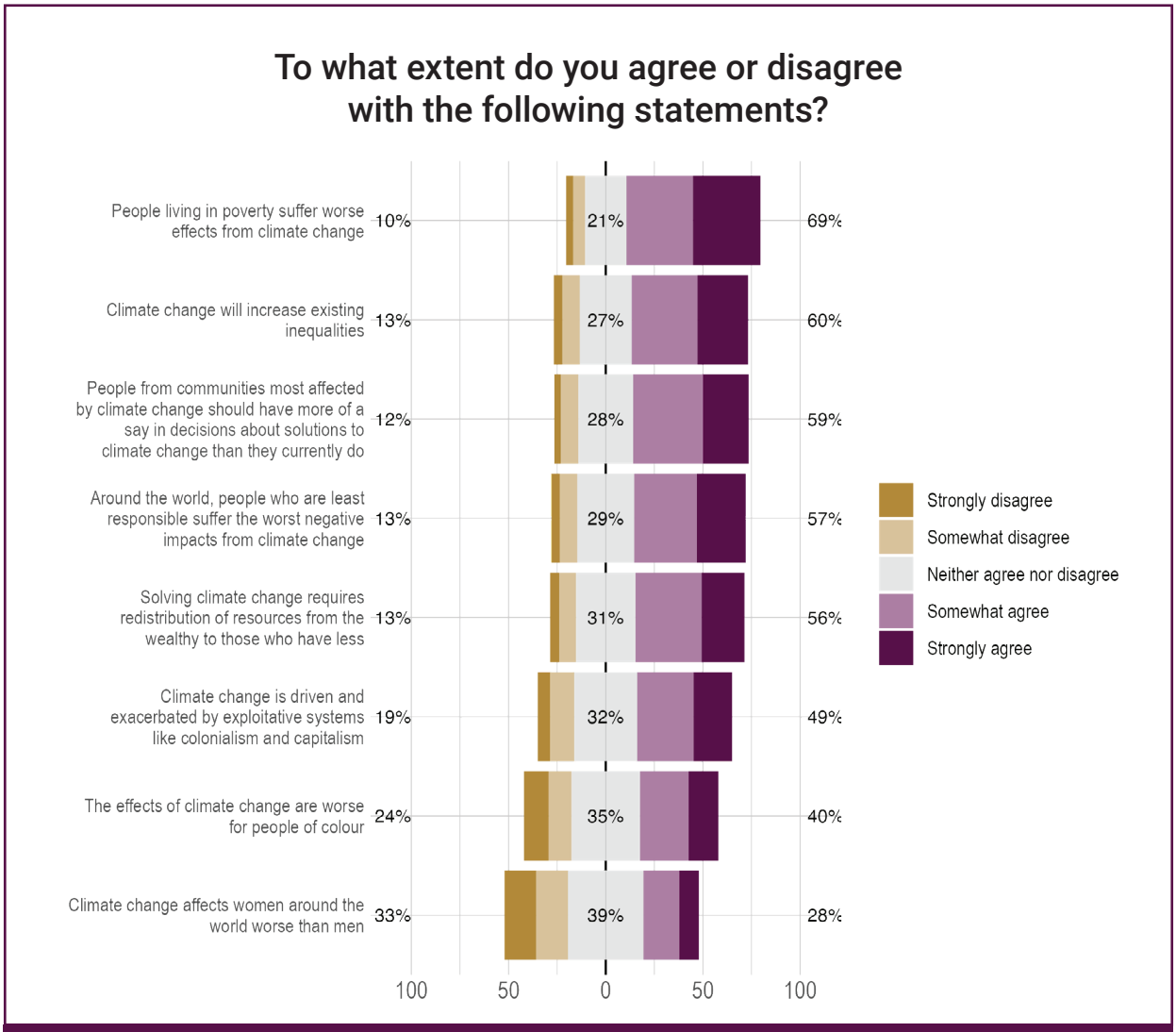


Figure 9. Agreement with climate (in)justice statements

Rasht, Gilan, Iran - May 2019. Photo: Pixiversal/Shutterstock.com

How people of colour are responding to climate change in their daily lives

Mainstream media, research and political narratives have typically been insensitive to the ways that people of colour drive forward change and lead communities through their personal actions in order to push systemic change. This is certainly the case in climate and environmental justice-related issues. Therefore, we thought it was critical to ask people of colour in the UK how they are responding to climate change in their own lives (Figure 10).

Over 74% of people in our study have changed their lifestyle in response to climate change.

We learned that over 74% of people in our study have changed their lifestyle in response to climate change. Almost half (46%) had signed a petition related to climate change or had donated to climate charities (42%). A third had attended webinars and

talks about climate change and a quarter have volunteered with organisations tackling climate and environmental issues, while about one in five participate actively in an environmental organisation or have attended a climate protest in the preceding 12 months.

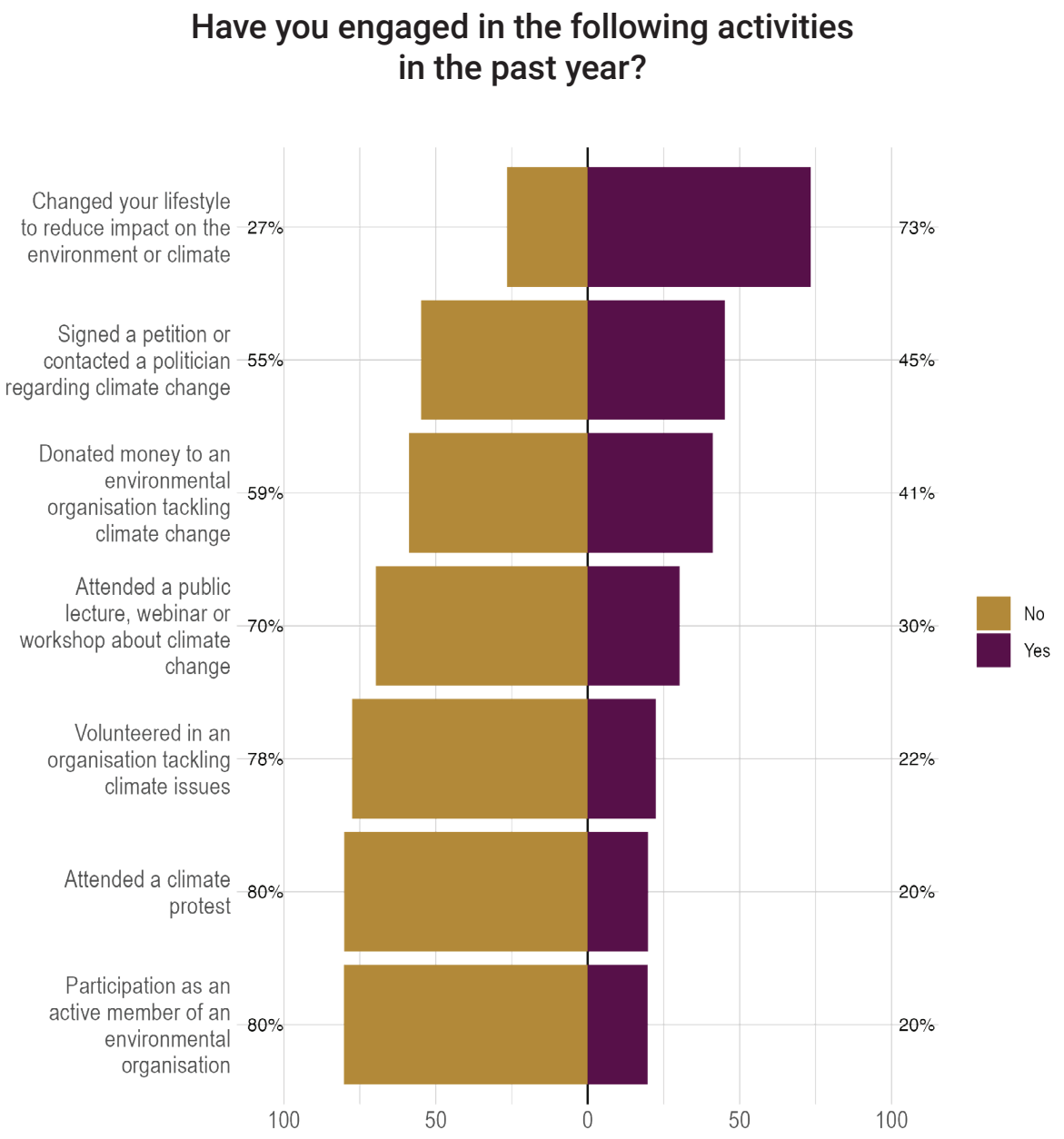


Figure 10. Participation in sustainability activities

Seeing as 74% of respondents told us they had changed their lifestyles, we wanted to know more details about their individual actions. We learned that, alongside support for climate policies highlighted above, our data also shows a strong orientation towards personal actions. A large majority of our sample have made efforts to reduce their impact on the environment by avoiding food waste (83%), saving energy at home (72%), and travelling by active transport rather than using private cars (65%). Roughly two in five (39%) have actively chosen not to fly for reasons relating to the climate and a similar proportion reported that they frequently choose not to eat meat (37%) or that they opt for second-hand goods (35%) rather than buying new (Figure 11).

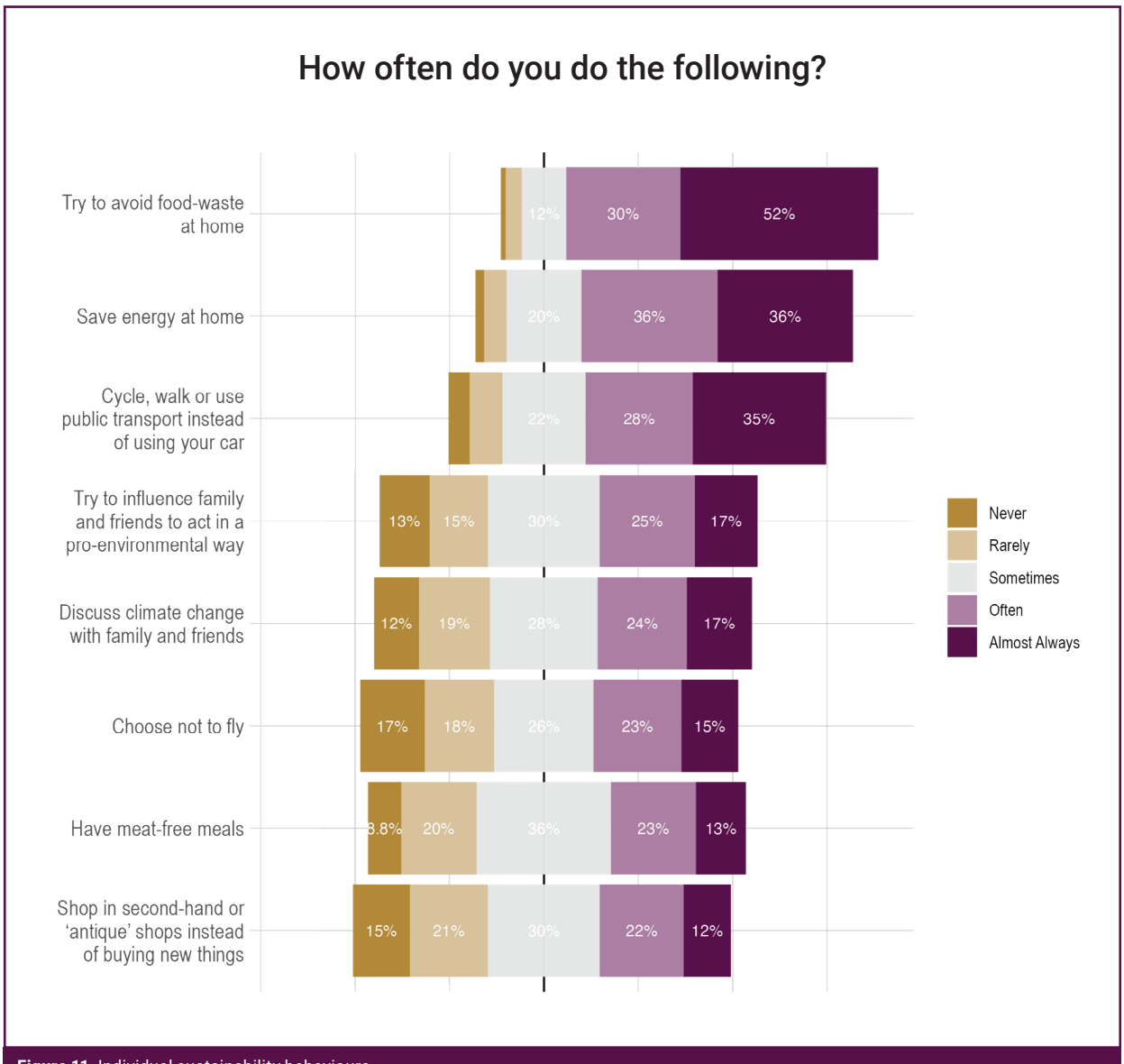


Figure 11. Individual sustainability behaviours

What is stopping some people of colour from taking individual action on climate change?

It has proven notoriously difficult to mobilise consistent public support or political action in response to climate change. This is also a problem that seems to summon "dragons of inaction"[35] in our everyday lives. With this in mind, we sought to find out what kinds of barriers prevent people of colour from connecting with climate change and taking individual action on the issue. The single most commonly reported barrier was other things taking up people's time and energy (82%). Perceived insufficiency of climate awareness or knowledge (80%), difficulty or inconvenience of climate actions (77%), and perceived inefficacy of individual action (73%), were also commonly reported to be significant barriers to taking individual action on climate change (Figure 12).

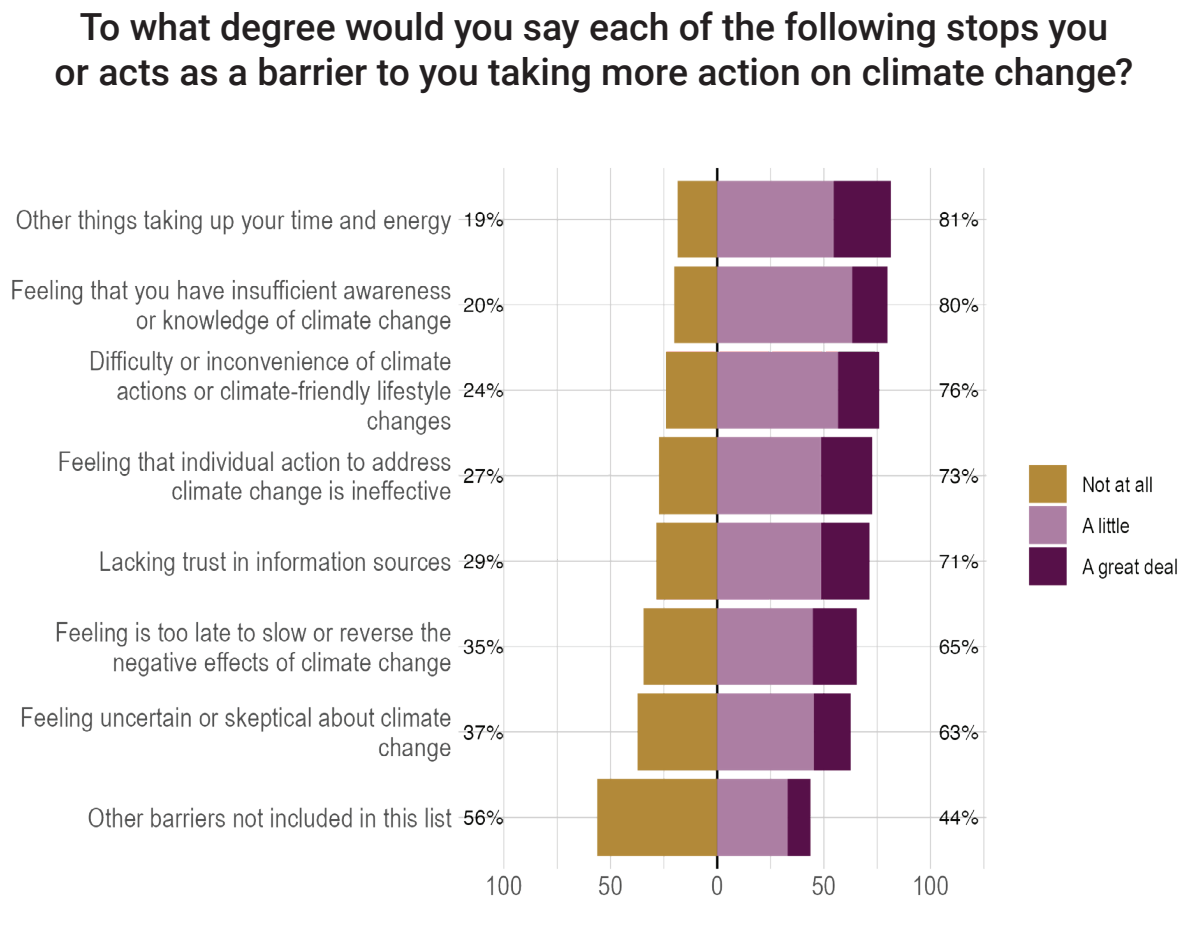


Figure 12. Barriers to individual action on climate change

London, UK - September 2020. Photo: stocksre/Shutterstock.com

Spirituality, religion, and connections to nature

Responses to climate change can involve a variety of felt experiences. We asked respondents questions relating to their religion and spirituality, and sought to better understand how people of colour in the UK connected their concern about climate change to experiences in nature and relationships with the Earth. Respondent's connection to these three factors: religiosity, spirituality, and nature connection did not overlap completely, but they produced similar effects. When asked "do you think the climate is changing", respondents who had a high level of religiosity, spirituality or nature connection all held disproportionately strong convictions that the climate is changing. The same held true when respondents were asked if they were well-informed about climate change.

As the summary on the survey methodology (on page 15) shows, **this group was highly religious**. 57% of our respondents reported that they participated in prayer outside of formal worship services at least once a week. Conversely, 32% reported that they did not participate in formal worship, with 42% attending worship services at least once a month.

We also asked questions using a nature-relatedness scale, which measures felt connection to nature. Responses showed that **people of colour have a strong sense of nature connection**, with only 15% of respondents disagreeing with the statement "my relationship to nature is an important part of who I am" and 58% of respondents agreeing. Given the correlation between climate change concern and nature-connection, we were not surprised to find respondents to the survey overall indicating very positive responses to rewilding.

Conclusions

The experiences, beliefs and feelings regarding climate change expressed to us by participants in this study strongly indicate that people of colour in Britain are concerned about and engaged with the climate crisis. For people of colour, climate change concern may be closely bound up with concerns about broader social issues and concerns are also grounded in local experiences and in specific connections to people and places at the frontline of the climate crisis.[36] One feature in the responses which held for a majority of our respondents even across many different points of emphasis was that they are turning their concern about climate change into action.

There is an important need to establish dialogue with ethnic minority communities around climate change particularly given lived experiences that serve as vital knowledge. Dialogue could form the basis for more substantive policy engagement, amplifying the action already underway by people of colour, and drawing on the expertise and knowledge of communities of colour and diaspora communities in efforts to bring about social and environmental transformation.

Engagement will need to encompass an articulation of the interconnections between global and local patterns of climate and environmental problems and injustices in ways that connect with and build upon the experiences, existing knowledge and concerns of everyday people. With focus and support, this work could broaden out towards large-scale transformation that could help propel the UK from aspirational to actual global cooperation on climate change in line with calls for climate justice and the long-term needs of climate-vulnerable countries who face devastation now.

London, UK - March 2019. Photo: Ink Drop/Shutterstock.com

Reflections

With a research report like this, it is customary to conclude with a set of concrete suggestions which can enable readers, especially those working in public policy, to quickly translate the research findings into action and results. As noted above, there were some clear and straight-forward findings in our data and we are confident that they could provide the basis for action and improvement in government and third sector action climate change. But that's not the whole story.

Our core research team spent much of 2022 analysing the survey data and discussing its significance in conversation with our project steering group. This survey broke new ground, both in terms of its focus on people of colour in the UK and in terms of the rigorous psychometric design we employed. It is one of the first studies ever to have been conducted with this audience around climate change. In analysing this data, we quickly realised that we were asking questions which had not been asked before in climate change policy spaces, and these questions and the conversations that arose were a crucial part of the research results. On one hand, this revealed the limitations of our approach, and the need for further long-term and ethnographic research which can provide more focussed and in-depth data regarding the questions we raise here around agency, concern, and experience.

It is challenging to represent questions and the process of questioning itself as a research finding, but we are convinced that it is of vital importance that we represent this part of the research process to our readers. With this in mind, we end this report by sharing some reflections and aspirations in the hope that the conversations we began in this project can continue, both in subsequent research by our research team, but also in wider spaces across British society as we grapple with an appropriate response to the exclusion of people of colour from the public conversation and policy design around climate change.

This survey has shown decisively that people of colour in the UK are concerned about Climate Change and willing to take action to engage with it as a personal and public issue. Yet, for a variety of reasons, their participation , concerns, and lived experience is not normally taken into account in the design and delivery of climate change policy solutions at community and National levels. Guesswork and unfounded assumptions by policymakers, practitioners and executives, in the absence of the kind of evidence provided in this report, can lead to widespread forms of exclusion at environmental charities in the UK. The outcome is that in many areas of environmental work, Black and Asian communities and audiences are excluded and made invisible in policy design.

> ***"As greenhouse gases pollute the atmosphere from the world's most developed countries, the waters rise or the rains fall in faraway places. Heat waves claim the weakest. Crops are lost. Places and the memories they hold are erased. Cultural heritage is eroded."*** [38]

We have taken a first step here in consolidating and clearly identifying the level of concern among people of colour in the UK. The next step is more complicated and will require

Gerung, Indonesia - February 2021. Photo: Dian Muliana/Shutterstock.com

environment professionals, climate change policy makers, and climate activists to open up towards more “unconventional” forms of policy design, consultation, and delivery. In this respect, “unconventional” policy design might take on a more explicitly local emphasis.

However, as our data shows, people of colour are worried about the effects of climate change in the UK and around the world. Familial or heritage connections and shared experiences of exposure to climate change impacts create psychological and material links between people and places at the frontline of climate change and diasporic ethnic minority communities in the UK. These links and shared relatable experiences are a vital resource for solidarity among diverse communities and for collective action at national, regional and global scales.

Future policy should draw on the rich variety of cultural heritage that is present across the UK, which can often come in the form of artistic and storied approaches to thinking about the issue of climate change. Drawing on these approaches will also potentially make communication more accessible to public audiences. It will illuminate the already-ongoing efforts of people of colour around climate change. Only this kind of work can counteract the self-perpetuating stereotype that people of colour are unengaged and enable the climate sector and society as a whole to benefit more widely from the knowledge, skills and abilities that people of colour have to offer. We draw these concerns towards some concrete aspirations so that future work may pick up where this project has concluded and take this work in new and exciting directions.

In the next section, we outline some of the challenges that our team has uncovered, and discussed in dialogue with other teams, in pursuit of these approaches to this work.

Aspirations

ASPIRATION 1 Push beyond "elite" actors and language

***Challenges:** (a) Establish new vernacular terminology, (b) start with local dissemination*

The inaccessible language of climate change is a known barrier to climate change engagement among the general UK public.[39] We have highlighted the important role of lived experience and expertise in our discussion of findings above and it is important to emphasise that lived experience does not always easily translate or reduce into technical "policy" language. Our findings confirm that a majority of respondents understand climate change impacts as having a relationship to inequalities. However, we also found that the majority of people of colour (63%) have not encountered the term 'climate justice'. We see this as a clear opportunity for dialogue and engagement around the term, which attempts to move from technical and hierarchical approaches to more distributed forms of knowledge production. Important work is being done, such as the Framing Climate Justice[40] project, to understand how to communicate climate justice effectively to the public.

ASPIRATION 2 Enable more 'people of colour' collaborations

***Challenge:** Establish new patterns of collective creation, process ownership and dissemination*

There is an uneven and often unjust distribution of attention and prestige in the environmental sector. The organisations which have real insight around the experiences and lived wisdom of people of colour on climate change are often submerged in the wake of large environmental NGOs. In a rush to get information out to the general public and promote research impact, work can often bypass people of colour-led climate organisations, community groups and networks. Combating this challenge and diversifying the environmental sector may require that process-ownership for research must be shared or delegated to people of colour-led climate organisations, community groups and networks to ensure that findings from research are engaged and deliberated by people of colour-led practitioner groups. As part of the research we have begun in this report, before formalising recommendations for policy-maker audiences, we aspire for dialogue and deliberation on the findings and patterns to then form policy recommendations. Considering the successful distribution across ethnicity, age, political leaning, region, religious affiliation and household income – such dialogue is necessary to expose differences and better nuance insights.

ASPIRATION 3

Form interdisciplinary academic and practitioner collaborations

***Challenge:** Confront particularities of "work cultures"*

Environmental concern can seem to transcend the particularities of work patterns and location. Yet, as we found in our work on this project, collaborators inevitably "carry'' particular working cultures with them into the work. Academic and practitioner ways of working vary substantially on a number of issues relating to methodology, pacing, and the ordering of activity. There is strength in interdisciplinary and transdisciplinary collaborations which value different parts of a process – honouring, respecting and enabling various field-based skills can strengthen collaborations. However, due to different working cultures (time to dedicate, resources available, balance of group and individual work for divergent and convergent processes) there can be significant and unexpected limitations which arise over the course of collaborative projects. Funding streams can also import particular (unadvertised) working cultures, so describing and establishing expectations and preferences from the outset, is vital in establishing a value-led interdisciplinary collaboration.

ASPIRATION 4

Collaborate within diversity and develop process-driven research

***Challenge:** Slow down to allow for diversity in approaches and meanings*

Part of the challenge of climate change as an issue is the way that an ever increasing sense of emergency and crisis commend fast results-focussed action. It seems likely that narratives around "emergency" and "consensus" have enabled policymakers and organisers to avoid the slow work of sharing meaning and exchanging knowledge in the midst of difference. Further, many scholars and practitioners collaborate for climate justice-based research due to an apparent alignment of values, but this agreement can obscure many forms of difference which will later challenge and slow collaboration. The kinds of conversations we are recommending here are time consuming and work intensive, in part because they require facilitation and planning. For example, shared language can carry different contextual meanings, which may not be uncovered until the work is well developed (the word "practitioner" is one example), based on each person's professional and personal experiences. Over the course of this project, our research team also found that our work together was iterative. As we uncovered points of disagreement, differences in experience and approach, we needed to go back and recursively adjust our narratives. This kind of iterative approach has a number of benefits, including the development of more resilient research communities and more adapted forms of communication. However, the fact remains that **substantial time and process to share meaning, exchange knowledge and value expertise across diversity is fundamental**. Reserving time and dedicated process for elaboration and deliberation can be transformational and visionary for climate justice.

ASPIRATION 5 Expand research data around lived experience

Challenges: Sidelining elite or default cultural contexts and gathering "everyday" data

As future projects seek to fill the gap in available data, there is a need not just for more data, but new types of data. Alongside the survey-based methods this research draws upon, new kinds of research are required to fully unpack lived-experience-based practices. This might include peer-led research, participatory action research, and in-depth ethnographic analysis, which each in their own way can help to enrich and challenge insights provided here and to inform new forms of climate justice-based action. The Lived Experience movement offers an example of this kind of pioneering work, by developing lived experience leaders. The urgency of the climate crisis requires huge investment for support, up-skilling and application. By taking lived-experienced-based approaches through ethnographic work, we can also help to nuance and pluralise an understanding of differences within the umbrella term 'people of colour'. The lived experience frame can also provide new contexts for climate policy which can more effectively engage with the diversity of grassroots action in the UK. Effectiveness here will require engagement with previously ignored themes and social contexts such as the wisdom that taxi drivers have for public transport policy, or community leaders for public health and education.[41]

There is a huge pool of lived experience to be drawn into the policy design, processes and communication around climate change. The research team is excited to see what new forms of observation and deliberation arise in reaction to the findings we have presented here. We're immensely grateful to the many hundreds of people who have already been involved in this research, and are eager to see what thousands more are yet to be drawn in!

Chosica, Peru - 2013. Photo: Ministerio de Defensa del Perú (CC BY 2.0)

Appendix

Final survey wording

Section 0 – Demographic screener

1. Which of the following categories best describes your ethnicity?
    a. White British or European (including White English, Irish, Scottish, Welsh and European)
    b. Asian or Asian British – Chinese
    c. Asian or Asian British – Indian
    d. Asian or Asian British – Pakistani
    e. Asian or Asian British – Bangladeshi
    f. Asian or Asian British – Other (please specify) _____
    g. Black or Black British – African
    h. Black or Black British – Caribbean
    i. Black or Black British – Other (please specify)
    j. Mixed White and Black African
    k. Mixed White and Black Caribbean
    l. Mixed White and Asian
    m. Mixed White and Arab
    n. Other Mixed race or Multiple ethnicities (please specify) _____
    o. Middle-Eastern or Arab
    p. Latinx or Hispanic
    q. Other (please specify) _____

Section 1 – Understanding of climate change

2. What would you say are the three most significant issues facing the UK today?
3. What would you say are the three most significant issues facing the UK over the next 20 years?
4. What is the first thing that comes to mind when you think of the phrase 'climate change'?
5. How much have you thought about climate change before today?
    i. Not at all
    ii. Very little
    iii. Some
    iv. A lot
    v. A great deal
    vi. Don't kwnow
6. How informed would you say you are about climate change?
    i. Not at all
    ii. Somewhat
    iii. A lot
    iv. A great deal
7. You may have heard that the world's climate is changing due to increases in temperature over the last 100 years. What is your personal opinion on this? Do you think the climate is changing?
    i. Definitely changing
    ii. Probably changing
    iii. Probably not changing
    iv. Definitely not changing
    v. Don't know

8. *[If respondent selected definitely or probably changing in response to Q5 above]* Which, if any, of the following best describes your opinion about the causes of climate change?

   i. It is entirely caused by natural processes
   ii. It is mainly caused by natural processes
   iii. It is partly caused by natural processes and partly caused by human activity
   iv. It is mainly caused by human activity
   v. It is entirely caused by huma activity
   vi. It is caused by other factors not mentioned here (please specify) _____
   vii. There is no such thing as climate change
   viii. Don't know

9. Thinking about your answers to the questions asked so far, how confident or not, are you about your views on climate change overall? Please answer on a scale of 1 to 10, where 1 means you are not at all confident and 10 means you are extremely confident.

   (Answer = [1 – not at all confident] ⟶ [10 – extremely confident])

10. Which of the following best describes your views on climate change?

    i. I am very concerned about climate change and think the government, companies and individuals need to act now.
    ii. I am concerned and think we need to act, but we have time to decide what the appropriate responses should be.
    iii. I suspect that climate change is happening, but I am not certain. We have time to make careful decisions about when and whether to respond.
    iv. I have not really thought much about climate change.
    v. I suspect that climate change is NOT happening, but I am not certain. I am concerned more about overreacting to climate change.
    vi. I do not believe that climate change is occurring and certainly do not think humans have caused it. So, I am not motivated to take or support action to address it.

Section 2 – Climate change experience

11. Have you experienced any direct or indirect signs of climate change during your lifetime or not?

    i. Yes
    ii. No

12. *[If answer is yes to Q10]* What signs of climate change have you experienced?

13. Have you or someone close to you ever experienced any of the following events within or outside the UK?

    (Answers = [yes, happened in the UK to me];
    [yes, happened outside the UK to me];
    [yes, happened in the UK to someone I know];
    [yes, happened outside the UK to someone I know];
    [no, has neither happened to me nor someone I know])

    a. Heatwave [discomfort/being unable to sleep]
    b. Heatwave [experiencing disruption to travel or working]
    c. Heatwave [Health significantly affected]
    d. Flood damage to your home [not including water leaking through roof or burst pipes]
    e. Flooding in your local area [e.g., experiencing disruption to travel]
    f. Relocation due to flood risk or erosion
    g. Extreme snow [damage to personal property]
    h. Extreme snow [experiencing disruption to travel or working]
    i. Water restrictions/shortages due to low rainfall
    j. Restrictions to, or shortage of, food supplies due to extreme weather
    k. Wildfires during drought periods [disruption to travel, loss of natural habitat]

14. If you have previously experienced one or more of the events listed in the previous question, please briefly describe the one event that feels most significant to you or that happened to you most recently. We are interested in knowing what happened, where it happened, when, and how you were affected.

15. In summary, thinking about the event you have just described, to what extent were you personally affected by this experience?

    i. A great deal
    ii. A fair amount
    iii. Just a little
    iv. Not at all

16. At the time you experienced the event you described above, to what extent, if at all, did it have a negative effect on your wellbeing? This could include how you felt physically or emotionally.

    i. It had no effect at all on my wellbeing
    ii. It had a fairly small negative effect on my wellbeing
    iii. It had a fairly large negative effect on my wellbeing
    iv. It had a very large negative effect on my wellbeing
    v. Don't know

17. At the time this event was occurring, how well do you feel you were able to cope with the effects it had on you?
    i. Not at all well
    ii. Not very well
    iii. Fairly well
    iv. Very well
    v. Don't know

18. On a scale of 1 to 7, where 1 means very unlikely and 7 means very likely, how likely do you think it is that climate change played a role in causing the event you just described?
    (Answer = [1 – very unlikely] ⟶ [7 – very likely]

19. Do you believe the property or house you currently live in is at risk of flooding?
    i. Not at all at risk
    ii. Possibly at risk
    iii. Definitely at risk

20. Heat stress occurs when the body becomes unable to get rid of excess heat. It can be caused by a combination of factors including air temperature, humidity, rate of physical activity and the type of clothing worn. Typical symptoms include inability to concentrate, heat rash, severe thirst, fainting and loss of consciousness. Do you believe you are personally at risk of experiencing heat stress during summer months in the UK?
    i. Not at all at risk
    ii. Possibly at risk
    iii. Definitely at risk

21. Do you believe you are at risk of exposure to dangerous levels of air pollution where you live or work?
    i. Not at all at risk
    ii. Possibly at risk
    iii. Definitely at risk

22. If your house were to be severely affected by flooding, how likely do you think it is that you would be able to access support from the following:
    i. Insurance companies
    ii. Local authority
    iii. National government agencies (e.g., DEFRA, Environment Agency)

23. If you were to be severely affected by heat stress, how likely do you think it is that you would be able to access formal support?
    i. Not at all likely
    ii. Somewhat likely
    iii. Very likely

24. Which institution or agency would you be most likely to approach for formal support with heat stress?
    i. Local hospital or medical surgery
    ii. Local authority
    iii. National government agencies (e.g., DEFRA, Environment Agency)
    iv. Other (please specify)
    v. Don't know

Section 3 – Climate change risk perceptions

25. How serious a threat do you think climate change poses to the following?
    (Answer = [1 – not at all serious] ⟶ [5 – extremely serious])
    a. You and your family in the UK
    b. People in your local area or city
    c. The UK as a whole
    d. Your family and/or friends living outside the UK

26. How likely do you think it is that the following will be severely affected by climate change in your lifetime?
    (Answer = [1 – not all likely] ⟶ [5 – extremely likely]; [6 – already severely affected])
    a. You and your family
    b. People in your local area or city
    c. People in the UK
    d. our family and/or friends living outside the UK

27. How concerned, if at all, are you about climate change?

    i. Not at all concerned
    ii. Not very concerned
    iii. Fairly concerned
    iv. Very concerned

28. Are you worried about the effects of climate change in places other than the UK?

    a. Yes
    b. No

29. *[If yes to Q26]* Could you briefly tell us where you worry about and why?

30. To what extent do you agree with the following statements:

    a. Most people I know are taking personal action to tackle climate change
    b. Most people around me expect that I care about climate change
    c. I can personally help to reduce climate change by changing my behaviour
    d. I personally feel I can make a difference with regard to climate change

31. Considering the risks posed to the UK as a whole by climate change, do you think the effects of climate change are:

    i. Worse for people from Black, Asian and other ethnic minority communities
    ii. Equal for all UK residents regardless of race
    iii. Don't know

32. *[If answer to Q31 above is greater risk to BAME communities]* In what ways would you say the effects of climate change are currently worse for people from Black, Asian and other ethnic minority communities in the UK?

Section 4 – Responses to perceived climate change risk

33. When you think about climate change and everything you associate with it, how strongly, if at all, do you feel each of the following emotions?
    (Answer = [1 – not at all] ⟶ [10 – a great deal])

    i. Hope
    ii. Guilt
    iii. Pride
    iv. Gratitude
    v. Anxiety
    vi. Optimism
    vii. Fear
    viii. Anger
    ix. Outrage
    x. Sadness
    xi. Powerlessness
    xii. Other (please specify) _____

34. You may have heard of the concept of climate anxiety, which refers to a very strong negative emotional response that some people have about climate change. Have you ever personally experienced the following as a result of feeling anxious or distressed about climate change?
    (Answer = [1 – Never]; [2 – sometimes]; [3 – Often]; [4 – Always])

    i. Difficulty falling asleep
    ii. Thinking you should not have children or having regrets about having children
    iii. Difficulty concentrating on work or school assignments
    iv. Difficulty having fun with friends and family

35. To what extent do you support or oppose the following policies?
    (Answer = [1 – strongly oppose]; [2 - tend to oppose]; [3 - tend to support]; [4 - strongly support])

    i. Subsidies for electric (emission-free) vehicles
    ii. Improving public transport (e.g., buses, trains, trams and taxis) to reduce dependency on private cars
    iii. Increasing taxes on any use of fossil fuels (e.g., coal, oil, diesel, petrol, gas)
    iv. Increasing the price of electricity to reduce our consumption
    v. Increasing taxes on carbon-intensive foods like meat and dairy products
    vi. Additional charges for people who fly more than twice a year (a 'frequent flyer' levy)
    vii. Increasing taxes on high carbon-emitting companies and industries (e.g., steel, fossil fuel and aviation companies)
    viii. Using public money to subsidise renewable energy (such as wind and solar power
    ix. Including nuclear power in the energy mix
    x. Spending public money now to prepare the UK for the impacts of climate change (e.g., building flood defences)
    xi. Spending public money to help people in developing countries adapt to harmful climate change impacts (e.g., flooding and drought)
    xii. Using public money to reparate or pay compensation to developing countries for loss and damage (loss and damage refers to climate change-induced harm that exceeds people's capacity to adapt)

36. Some environmental groups advocate rewilding areas of the UK countryside and sea as an approach to addressing climate change. Rewilding means letting nature take care of itself by, for example, removing dams and dykes to free up rivers, reducing active management of wildlife populations, allowing natural forest regeneration, and re-introducing species that have previously disappeared due to human activity. To what extent do you support or oppose rewilding areas of UK land and sea as a strategy for tackling climate change?

    i. Strongly oppose
    ii. Tend to oppose
    iii. Tend to support
    iv. Strongly support
    v. Don't know

37. In many parts of the world, groups of citizens have been engaging in various forms of civil disobedience and protests to pressure their governments and leaders to take more drastic measures against climate change and carbon emissions.

    a. To what extent do you support or oppose people engaging in non-violent civil disobedience and protests to pressure government representatives to act against climate change?
    (Answer = [1 – strongly oppose] ⟶ [4 – strongly support])

    b. In the next 12 months, how likely are you to participate in a protest for increased action by the UK government against climate change?
    (Answer = [1 - Very unlikely] ⟶ [4 – Very likely])

    c. Imagine a situation in which all barriers (e.g., work or family commitments) were removed, how interested would you say you are in participating climate protests or other forms of activism to pressure the UK government and companies to take more action on climate change?
    (Answer = [1 - Not at all interested] ⟶ [4 - Very interested])

38. Have you engaged in the following activities in the past year?
    (Answer = [Yes/No])

    a. Attended a climate protest
    b. Donated money to an environmental organisation tackling climate change
    c. Changed your lifestyle to reduce impact on the environment or climate
    d. Volunteered in an organisation tackling climate issues
    e. Signed a petition or contacted a politician regarding climate change
    f. Attended a public lecture, webinar or workshop about climate change
    g. Are you an active member of an environmental organisation?
    h. *[If answer is yes to 'g' above]* What is the name of the environmental organisation you are a member of? _____

39. How often do you do the following?
    (Answer = [1 – Never]; [2 – Rarely]; [3 – Sometimes]; [4 – Often]; [5 – Almost always]; [Not Applicable])

    a. Cycle, walk or use public transport instead of using your car
    b. Have meat-free meals
    c. Try to influence family and friends to act in a pro-environmental way
    d. Shop in second-hand or 'antique' shops instead of buying new things
    e. Choose not to fly
    f. Save energy at home (e.g., by turning down the heating/thermostat)
    g. Try to avoid food-waste at home
    h. Discuss climate change with family and friends

40. To what degree would you say each of the following stops you or acts as a barrier to you taking more action on climate change?
    (Answer = [1 – not at all]; [2 – a little]; [3 – a great deal])

    a. Feeling that you have insufficient awareness or knowledge about climate change (e.g., knowledge of causes, consequences or appropriate climate actions)
    b. Feeling uncertain or sceptical about climate change
    c. Lacking in information sources (e.g., due to sensationalism or exaggeration in the media)
    d. Difficulty or inconvenience of climate actions or climate-friendly lifestyle changes
    e. Feeling that individual action to address climate change is ineffective
    f. Feeling it is too late to slow or reverse the negative effects of climate change
    g. Other things taking up your time and energy (e.g., family, work, finances)
    h. Other barriers not included in this list (please specify) _____

41. How much do you trust each of the following for leadership on climate action?
    (Answer = [1 – Not at all]; [2 – A little]; [3 – A lot])

    a. Individual climate activists *(if answer is 'a little' or 'a lot', please name specific activists you trust)*
    b. Local community groups
    c. Business and industry
    d. Local authorities
    e. National agencies (e.g., the Environment Agency)
    f. The UK government
    g. Environmental charities (e.g., WWF, Greenpeace)
    h. Faith-based organisations (e.g., Christian Aid, Islamic relief)
    i. Scientists

42. How much do you trust each of the following for reliable information on climate change?
(Answer = [1 – Not at all]; [2 – A little]; [3 – A lot])

    a. Individual climate activists *(if answer is 'a little' or 'a lot', please name specific activists you trust)*
    b. Local community groups
    c. Business and industry
    d. Local authorities
    e. National agencies (e.g., the Environment Agency)
    f. The UK government
    g. Environmental charities (e.g., WWF, Greenpeace)
    h. Faith-based organisations (e.g., Christian Aid, Islamic relief)
    i. Scientists

Section 5 – Climate justice

43. Have you ever heard of the phrase "Climate Justice"?
(Answer = [Yes/No])

44. How much do you know about climate justice?

    i. Nothing at all
    ii. A little
    iii. A fair amount
    iv. A lot

45. [If yes to Q43] What does "Climate Justice" mean to you?

46. To what extent do you agree or disagree with the following statements?
(Answer = [1 – strongly disagree] ⟶ [5 – strongly agree])

    a. People living in poverty are suffer worse effects from climate change
    b. Around the world, people who are least responsible suffer the worst negative impacts from climate change
    c. Climate change affects women around the world worse than men
    d. Climate change will increase existing inequalities (e.g., the wealth gap between rich and poor countries)
    e. The effects of climate change are worse for people of colour (e.g., Black, Asian, Middle-Eastern people) around the world
    f. Solving climate change requires redistribution of resources from the wealthy to those who have less
    g. People from communities most affected by climate change should have more of a say in decisions about solutions to climate change

Section 6 – Nature connection, politics, religiosity and demographics

47. All things considered; how happy would you say you are?
(Answer = [0 – Extremely unhappy] ⟶ [10 – Extremely happy])

48. All things considered, how satisfied are you with your life nowadays?
(Answer = [0 – Extremely dissatisfied] ⟶ [10 – Extremely satisfied])

49. To what extent do you agree or disagree with the following statements?
(Answer = [1 – Strongly disagree] ⟶ [5 – Strongly agree])

    a. My ideal vacation spot would be a remote, wilderness area
    b. I always think about how my actions affect the environment
    c. My connection to the nature and environment is a part of my spirituality
    d. I take notice of wildlife wherever I am
    e. My relationship to nature is an important part of who I am
    f. I feel very connected to all living things and the Earth
    g. My connection to nature is inspired by my heritage, ancestry and traditions

50. [Spirituality]

    a. In terms of questions I have about my life, my spirituality answers:
    (Answer = [0 – no questions] ⟶ [10 – absolutely all my questions])

    b. Growing spiritually is:
    (Answer = [0 – of no importance to me] ⟶ [10 – more important than anything else in my life])

    c. When I'm faced with an important decision, my spirituality:
    (Answer = [0 – plays absolutely no role] ⟶ [10 – is always the overriding consideration])

d. Spirituality is:
(Answer = [0 – not part of my life] ⟶ [10 – the master motive of my life, directing every other aspect of my life])

e. When I think of things that help me grow and mature as a person, my spirituality:
(Answer = [0 – has no effect on my personal growth] ⟶ [10 – is absolutely the most important factor in my personal growth])

f. My spiritual beliefs affect:
(Answer = [0 – no aspect of my life] ⟶ [10 – absolutely every aspect of my life])

51. In politics, people often talk about the 'left wing' and 'right wing'. Below is a scale where '0' represents those who are on the far left politically and '10' represents those who are on the far right. Where would you place yourself on such a scale?
(Answer = [0 – far left] ⟶ [10 – far right])

52. How interested are you in politics?
(Answer = [1 – not at all] ⟶ [4 – very interested])

53. How would you vote if there were a general election tomorrow?

a. Conservative
b. Labour
c. Liberal Democrat
d. Scottish Nationalist
e. Plaid Cymru
f. Green Party
g. Other (please specify) _____
h. Would not vote
i. Not eligible to vote
j. Undecided
k. Prefer not to say

54. What is your religion?

a. Agnostic
b. Atheist
c. Baha'i
d. Buddhist
e. Christian
f. Confucian
g. Jain
h. Jewish
i. Hindu
j. Indigenous Traditional Religious
k. Muslim
l. Pagan
m. Shinto
n. Sikh
o. Spiritual but not religious
p. Zoroastrian
q. No religion
r. Prefer not to say
s. Other (please specify) _____

55. Regardless of whether you belong to a particular religion, how religious would you say you are?
(Answer = [0 – Not religious at all] ⟶ [10 – Very religious])

56. Apart from weddings, funerals and other special occasions, how often do you attend religious services?

i. Every day
ii. More than once a week
iii. Once a week
iv. At least once a month
v. Only on special holy days
vi. Less often
vii. Never
viii. Prefer not to say

57. Apart from when you are at religious services, how often do you pray?

    a. Every day
    b. More than once a week
    c. Once a week
    d. At least once a month
    e. Only on special holy days
    f. Less often
    g. Never
    h. Prefer not to say

58. What is your gender?

    a. Woman
    b. Man
    c. Trans-woman
    d. Trans-man
    e. Non-binary
    f. Other _____
    g. Prefer not to say

59. In what year were you born? *(Please state full year only e.g., 1999)*

60. In what country were you born?

    a. United Kingdom
    b. Other (please specify) _____

61. Is one or both of your parents born outside of the UK?
    (Answer = [Yes/No])

62. Do you have any children of your own, step-children, adopted children, foster children or a partner's children living in your household?
    (Answer = [Yes/No])

63. Which of the following best describes the area where you live?

    i. A big city
    ii. Outskirts of a big city
    iii. A town or small city
    iv. A country village
    v. A farm or home in the countryside

64. Which, if any, is the highest educational or professional qualification you have obtained? *(If still studying, please select your highest so far)*

    a. GCSE/O – Level / CSE
    b. Vocational qualifications (= NVQ1+2)
    c. A-Level or equivalent (= NVQ3)
    d. Bachelor degree or equivalent (= NVQ4)
    e. Masters/PhD or equivalent
    f. Other (please specify) _____
    g. No formal qualifications
    h. Don't know

65. What is your current occupation? _____

66. [Annual income] Approximately how much is the total annual income of your household?

    a. Less than £10,000 p/a
    b. £10,000 – £20,000 p/a
    c. £21,000 – £30,000 p/a
    d. £31,000 – £40,000 p/a
    e. £41,000 – £50,000 p/a
    f. £51,000 – £60, 000 p/a
    g. £61,000 – £70,000 p/a
    h. Over £70,000 p/a

67. Please enter the first four digits of your Postcode _____

68. Please enter any comments you have about the study below.

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