Although the public are largely aware of climate change, their understanding of how they produce and manage carbon is generally not sufficient to lead to changes in behaviour and lifestyle, according to a recent study. The researchers therefore recommend policy action to increase the ‘carbon capability’ of the general public.

Individuals throughout society must act if we are to meet climate change targets. The policy preference is to encourage public engagement with climate change through voluntary action, but to be effective this requires a good understanding of what inspires the public to become engaged. Much research has been conducted on how the concept of carbon footprints or using carbon calculators could encourage behavioural change, but little has been done on the actual meaning of ‘carbon’ in everyday life and decisions. This study introduces the concept of ‘carbon capability’, which considers how able the public are to make informed judgments and effective decisions about how they produce and manage carbon.

The study carried out a postal survey of UK households to explore their level of carbon capability. The 551 respondents were broadly representative of the UK population, apart from being slightly more qualified (26 per cent had a university degree). The results revealed that climate change awareness was high and most respondents (85.6 per cent) agreed that climate change is caused by both natural processes and human activities.

While participants recognised the causes of climate change, there were misperceptions about the contribution of each of these causes. For example, they tended to identify the most important causes as more distant activities, such as industry and deforestation, and underestimated the impact of their own actions. Just over half agreed that climate change is affecting, or will affect, them personally.

There was a wide variation in the understanding of the term ‘carbon’, from ‘carbon dioxide’, to more moral interpretations, such as ‘pollution’ and ‘environmental destruction’. There were also some beliefs that carbon was responsible for other prominent environmental issues, for example, some indicated that ozone layer damage was caused by carbon emissions.

Respondents reported taking several actions to reduce their emissions. Most common was reducing domestic energy. Changing travel and shopping habits were less common. Most importantly, there was little connection between carbon awareness and personal choices or action. For example, knowledge about the contribution of air travel and car use to climate change is high (over 90 per cent acknowledged these as causes of climate change), but only 6-36 per cent (depending on the particular transport behaviour) of respondents reported changes in behaviour in relation to these factors.

The research suggests that, in the UK, carbon capability is generally not high enough for public engagement with carbon-reduction activities. It provides a number of recommendations to address this. Firstly, communications need to provide relevant information to guide climate change action and carbon needs to be made tangible. The concept of carbon footprint could be made more ‘real’ through smart metering and carbon labelling, as well as placing carbon in more familiar contexts, for example, placing it in the context of health or finance.

Alongside this, citizens should be encouraged to influence the rules that govern carbon, such as carbon allowances, transport policies and renewable energy policies, through voting, lobbying and protesting. This combination of carbon education alongside structural measures is required to promote lifestyle change to move towards a low-carbon society.


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