Title: **The people's climate plan: a review of UK deliberative mini publics and public preferences on climate policy.**

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Abstract:

The UK must reach net zero by 2050, but the path to this target remains unclear and progress to date has been insufficient. There are concerns that our democratic institutions may be unable to develop effective climate policies which work for citizens. This has seen calls for increased public engagement in climate policy, often informed by the ideals of deliberative democracy. Experimentation with deliberative innovations have taken place in various local, national, and international contexts on policy challenges, such as climate change. The deliberative mini public (DMP) has emerged in this space, bringing together a representative sample of a population to hear expert opinion, discuss with peers, and produce recommendations on what they think should happen. Deliberation produces detailed and informed public opinion based on evidence and reason, transforming public preferences and indicating what the wider public might think had they had the time to deliberate on the issue. The use of DMPs has been significant in the UK, both at the local and national level. The systems turn in deliberative democracy has opened debates on DMP's role in the wider democratic system, and their potential role to 'signal' the wider public towards issues which require more attention and debate. This research, therefore, undertakes a review of 30 UK DMPs on climate change from 2019-2023. Their recommendations are aggregated to establish which climate policies are well-supported. Publicly available polling data from the same period is collected and compared to the findings of the DMP analysis to assess where DMPs and polls diverge and converge on support for climate policies. This reveals the 'signals' DMPs may send to the wider public and other political actors on climate. The research explores the role of the climate DMPs in the political system, discussing its strengths and weaknesses as a tool available to institutions.

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Author's declaration

In submitting this document I declare that this submission is my own work. I have not submitted it in substantially the same form towards the award of a degree or other qualification. It has not been written or composed by any other person, and all sources have been appropriately referenced or acknowledged.

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1. Introduction

1.1 Rationale

Despite increasing scientific, political, and social consensus that climate change requires an urgent response, no large economy is currently on track to meet their climate targets in line with the Paris Agreement (Climate Action Tracker, 2023). In 2019, the UK set a legally binding target of reaching net zero emissions by 2050, which will require transformations in governance, infrastructure, and behaviour. However, the UK is currently off track to meet its climate change targets, with policy design and delivery behind schedule (CCC, 2023). Developing transformative policies for climate have been hampered by top-down and technocratic approaches to policymaking, key issues which have restricted efforts to develop climate policies in contemporary democracies (Willis et al., 2022).

Though policy action is lacking, the UK public would like to see more action on climate change from government and would be willing to do more themselves (Climate Barometer Tracker, 2023). Increasing public concern and limited progress on addressing the climate crisis risks exacerbating already low public trust in democratic institutions. Whilst there is broad support for climate action from the public, this does not necessarily mean they will support the specific policies that are introduced as part of this package. It is becoming increasingly clear that to ensure public support and effective policy design, citizens need to be involved in the design of the very policies that will impact their everyday lives (Bryant and Stone, 2020). There are concerns that our current democratic institutions and practices have been unable to do this effectively, therefore, we need new ways of bringing citizens into the policymaking process. Efforts to make this happen have been informed by the field of deliberative democracy.

The ideal of deliberative democracy is to reach collective, legitimate decisions through the 'force of the better argument' and reasoned discussion (Habermas, 1984). Enabling this is supposed to require an approximation of the 'ideal speech situation', the essence of which is a situation where anyone can participate and all claims are open to scrutiny, with only those assessed as valid then influencing decisions. Early attempts to create such an 'ideal speech situation' focused on designing 'deliberative mini publics' (DMPs), such as citizen's assemblies and juries. DMPs bring together a representative sample of a population, where they learn from experts and discuss public policy challenges with their peers. The output of the process is a series of conclusions or recommendations, outlining what the group thinks should happen on a given issue, which is then given to decision makers to consider (Climate Citizens, 2022a).

Clearly DMPs do not allow all people affected by an issue to participate. Yet by evoking learning and deliberating, DMPs transform people's policy preferences, and gives an insight into what a well-

informed public would think on a given policy issue, had they had the time to go through the process themselves (Fishkin, 1997; 2011). This allows for a more detailed understanding of public attitudes towards key issues, which cannot be captured by other, more simplified methods of collecting public opinion, such as polling. It is on these grounds that DMPs could form a legitimate basis for decision making in a large polity.

The study and practice of DMPs has developed over time, allowing better understanding of their application and role as a governance tool. Early research focused on their internal characteristics, on how to ensure they best embody the 'ideal speech situation'. This gave way to a greater focus on how such processes could be institutionalised, as part of a wider 'systems' turn within deliberative democracy. This has led to many debates over the appropriate role of DMPs within complex democratic systems. Some deliberative democrats, particularly Lafont (2019), are critical of empowering DMPs, suggesting they represent democratic shortcuts, restricting deliberation and participation in democracy to a select few. Their utility has also been questioned given their limited impact on policy thus far (Pateman, 2012; Lafont, 2019). In response, more participatory conceptions of DMPs have been proposed, suggesting that DMPs could play a role in improving the wider political system by impacting public debate, signalling to the public key issues with policy. Through this process, all citizens are able to deliberate on political issues, rather than concentrating deliberation and decision making power to a group of randomly selected individuals (Lafont, 2019).

In recent years, DMPs have been used in many different contexts by local, regional, national, and international institutions to help with policy challenges. This trend has been termed the 'deliberative wave' (OECD, 2020), as policymakers aim to engage citizens on complex issues which will require systemic social and behavioural change, from Brexit (Renwick, 2017) to constitutional change in Ireland (Citizens Assembly, 2017). In particular, the challenge of climate change has driven a surge in practical experimentation with DMPs, which have attempted to develop effective climate policies with citizens.

In the UK, many local authorities have hosted DMPs to develop local policies following the declaration of a climate emergency. Local authorities in the UK are under resource and budget constraints with regards to climate (Dodd et al., 2023; British Academy, 2024) and thus commissioning a DMP may help them develop a more effective plan, addressing key local challenges through prioritised recommendations (Bryant and Stone, 2020). Furthermore, there have also been two national assemblies focusing on the response to climate change, Climate Assembly UK (CAUK) and the Scottish National Assembly. According to the Knowledge Network On Climate Assemblies

(KNOCA, 2024), there have been 49 DMPs across the UK between 2019 and 2023, specifically on climate change and how society transitions to net zero.

1.2 Research objectives and questions

The sheer number of DMPs on climate in the UK means that there is an opportunity to gain a detailed understanding of which climate policies are most supported and the utility of the DMP as a democratic tool to inform decisions. It also presents an opportunity to study the types of signals that may be sent about public attitudes on climate policy to the wider public- thus contributing to our understanding of the potential signalling role of DMPs recently suggested in deliberative democratic theory. This research, therefore, develops the first detailed picture of what UK DMPs tell us about public support for different areas of climate policy. This is done through collecting and synthesising the recommendations made by 30 UK climate DMPs from 2019-2023. The second phase of the research collects publicly available polling data on UK climate policies through a structured media and literature search. This analysis highlights where DMPs and polls agree and disagree on different aspects of UK climate policy. This identifies what kinds of signals and informational cues that DMPs may send out to the public and other political actors, assessing how this may impact the wider political debate on climate. The research weighs up the learnings from climate DMPs in the UK, evaluating the potential roles they could play in the democratic system. The research is explored through three key questions:

- What climate policies do DMPs in the UK propose?
- Where do DMPs and polls converge and diverge on UK climate policy?
- What role could climate DMPs play in the net zero transition?

This thesis begins with a literature review (chapter 2), which will set the scene of the recent struggles and context of UK climate policy, deliberative democratic theory and practice, and the experimentation with DMPs on the issue of climate change. The methods section outlines how the DMP synthesis was completed, how polling data was collected, and the completion of the comparative analysis (chapter 3). The results section identifies the characteristics of climate DMPs in the UK, which climate policies DMPs are most supportive of, and how this compares to publicly available polling data (chapter 4). These results are discussed in chapter 5, in the context of UK climate policy, deliberative democratic theory, and Lafont's (2019) participatory conception of the DMP. This section will aim to identify the strengths and weaknesses of utilising DMPs in climate decision making and assess their potential role as signals to impact public debate. Finally, the thesis concludes with a summary of the research, its findings, and potential implications (chapter 6).

2. Literature Review

2.1 Climate policy in the UK

It is now all but certain that warming will surpass 1.5°C and potentially 2°C from pre-industrial levels before 2100, yet responses remain lacking: global emissions continue to rise, and climate policies remain inadequate to address the climate crisis (IPCC, 2023). Currently, no nation has developed a nationally determined contribution (NDC, meaning a national target contributing to the overall global reduction of emissions) (Climate Action Tracker, 2023), so keeping the increase in global surface temperature to under 2°C, as set out in the 2015 Paris Agreement, is becoming increasingly unlikely. This, therefore, has raised questions as to why climate governance is failing when there appears to be an increasing scientific, social, and political consensus to reduce global emissions and pursue the 1.5°C warming limit as set by the Paris Agreement.

The UK has a legally binding commitment to reach net zero emissions by 2050, an extension of the Climate Change Act of 2008. Despite progress in some sectors, such as renewable energy and electric vehicles, current policy design and implementation is insufficient to reach the 2050 target. The UK Climate Change Committee (CCC) have recently noted its 'marked decline' in confidence in the UK meeting its net zero target, with gaps in crucial policy areas such as energy efficiency in buildings, industrial decarbonisation, and agriculture and land use (CCC, 2023). Moreover, the UK continues to pursue fossil fuel extraction; the first new coal mine was approved in over 30 years in 2022 in West Cumbria (West Cumbria Mining Limited, 2023) and the previous Prime Minister committed to future oil and gas licensing rounds in the North Sea (UK Gov, 2023). Furthermore, in September 2023, the government announced a pushback of deadlines for key net zero policies, including banning the sale of petrol and diesel cars and the phase out of gas boilers (Crerar et al., 2023). This highlights the scale of challenge facing the UK as it aims to develop and deliver policies consistent with the 2050 deadline.

Alongside the lack of policy action, the UK's current pathway to net zero is also highly dependent on technological solutions, in particular carbon capture and storage (CCS). However, there remains significant uncertainty on scaling up these technologies, as projects are still being developed and there is a need to design business and funding models to support the adoption of the technology. The CCC (2023) notes that there are no operational CCS facilities in the UK yet. They suggest a need for alternative policies in case the CCS projects meet challenges in their development and thus are unable to operate at scale in the timelines required. This over-reliance on technological solutions has resulted in the recommendation that the government place more emphasis on demand-side policies (CCC, 2023), focusing on encouraging low-carbon choices at the individual level. It is well-established that for the UK to reach net zero, individuals will need to make changes, such as reducing emissions

in the home, shifting to more sustainable diets, and reducing travel by car and air. However, the required social transformations are not well accounted for in UK climate plans and will have a significant impact on people's everyday lives. Policies in these areas, therefore, are significant risks for politicians, as poor design may result in backlash from the wider public.

The need for the development and implementation of demand-side policies will lead to changes and disruption to citizen's everyday norms, lives, and practices. This will require engaging citizens with climate policies, to ensure that they can be supported in making the necessary changes needed to reach the UK's climate targets. Through engaging the public in 'climate politics', a mandate for action could be built which would identify where citizens are most supportive of action and where they need the most support. However, there are numerous democratic challenges which have hampered the development of effective and transformative climate policy, which has often limited or excluded the role of citizens in the policy process.

2.2 Democratic challenges facing UK climate policy

A major barrier to implementing effective solutions to climate change has been that it has predominantly been viewed as a technical problem (Wilsdon and Willis, 2004; Willis, 2022). Through viewing climate change as a technical problem, there is a preference towards technical solutions, as shown in the UK's approach to technologies such as CCS. Whilst technological innovations will play a key role in the transition to net zero (CCC, 2023), they alone will not achieve the emissions reductions required to meet the UK's climate targets without policies seeking to reduce demand. A technocratic approach to climate policy fails to appreciate and confront the demand-side policies necessary to promote incremental social and behavioural change. Reaching net zero will therefore not only require technical and scientific progress, but also social and political change.

The policy process on climate has been, to date, largely top-down (Willis, 2020a). This has given preference to experts in policy and climate science who have driven policy, an approach termed 'cockpitism' (Hajer et al., 2015). It is thus unsurprising that this approach has proved unsuccessful at engaging with wider stakeholders who may be affected by the changes climate policy may bring. There may need to be trade-offs and compromise for specific policies, which cannot be considered with a top-down approach and without engagement with citizens (Kythreotis et al., 2019; Mendez et al., 2024). This may not only result in limited take up and involvement for a specific policy, but also work to reduce support for broader climate action and alienate the wider public. This approach also fails to acknowledge the potential co-benefits delivered by some climate policies (Karlsson et al., 2020), as well as dismissing the moral and ethical complexities involved in the net zero transition. Climate policies, clearly, should not work in ways that exacerbate existing inequalities, and must

ensure that any changes to people's lives are considered. These key social elements of policy are often ignored in top-down approaches with limited opportunities for public engagement.

It has also been suggested that the political structures of contemporary democratic states make it challenging to deliver ambitious and transformative policies on climate (Pateman, 2012; Niemeyer and Jennstal, 2018). Significant global actors in the economy have the power to influence decision makers, as well as to influence public opinion and understanding of climate change. The fossil fuel industry has continually worked to obstruct climate policies for many decades despite the overwhelming scientific consensus (Rich, 2021). The discourses of climate delay have come in many forms, whether this be through redirecting responsibility onto others, championing technological solutions that allow for continued fossil fuel exploration, and/or arguing that fossil fuels provide opportunities for development and social justice (Lamb et al., 2020). This influences political and cultural norms, which makes developing and delivering effective climate policies highly challenging.

Climate action has also been hindered by social inertia, a failure of people to acknowledge fully the scale of social and economic change required to address climate change. Modern life is inherently and highly connected to high carbon systems and thus comprehending change can be overwhelming for many citizens (Willis, 2020a). Many elements of what is considered to be a high standard of living have social and cultural value attached to them, such as flights and car use, yet they have a significant impact on emissions. It is becoming increasingly clear that the public tends to support more lenient policies, which are voluntary or information-based, rather than more restrictive policies through regulations or market-based interventions (Bretter and Schulz, 2024). This is particularly evident for reducing meat and dairy consumption for example, in which people tend to be supportive of encouraging low carbon diets, but are much less supportive of introducing restrictions on meat and dairy consumption (Brock et al., 2023; Verfuerth et al., 2024). This has resulted in some concluding that the public have a preference towards policies which allow simple behavioural adjustments, rather than more challenging lifestyle changes (Brock et al., 2023). This shows that net zero transition, and certain policies within it, are already and will continue to be highly contested across cultural and political lines (Ipsos and CAST, 2022; Kallbekken, 2023), and thus the development of policy must carefully attend to these challenges.

However, polling data in the UK consistently displays that the public support net zero, are becoming increasingly concerned about climate, and believe the government should be doing more and showing more leadership to address the climate crisis (YouGov 2021, 2023; ONS, 2022; Onward, 2021; Climate Barometer Tracker, 2023; Poortinga et al., 2023; Verfuerth et al., 2023; Verfuerth et al., 2024). It has been suggested that action on climate is no longer a 'partisan agenda' and generally has

widespread support (Orr and Powell, 2023). Research also indicates that many politicians now view climate as a 'mainstream issue' (Westlake and Willis, 2023), giving encouragement that long-term policies could be implemented across governments to ensure the UK meets its climate targets. However, in their latest report, the CCC (2023) noted that the UK had lost its status internationally as a 'climate leader'. This lack of climate leadership and policy progress has resulted in a lack of public trust in government to effectively develop and deliver the policies required to achieve a just, net zero transition by 2050, coinciding with increased public concern on climate.

The underestimation of public willingness to act on climate change and the lack of bold action on climate change has resulted in a stand-off. On the one hand, politicians don't want to threaten their position by supporting climate policies that they fear may not be widely supported by the public. On the other hand, the public may not be willing to engage with climate policies if the government don't support people in making the necessary changes or show ambition themselves. A suggested solution to this stand-off is for the government to lead on climate but engage with citizens whose everyday lives will be impacted by net zero policies (Willis, 2020b). This will help better inform decision makers on what policies will work and how people could be supported through this transition. This has been termed a 'social mandate' for net zero (Howarth et al., 2020; Ainscough and Willis, 2022), which will allow politicians to advocate for climate policies which have been co-designed with and supported by citizens who will be impacted by such policies. Clearly, this will require new forms of public dialogue and participation, to ensure that citizens can engage in a two-way conversation with decision makers and develop effective climate policy (Climate Citizens, 2022a).

2.3 Deliberative democracy

A fix to the current challenges facing the development of effective climate policy could be introducing more participatory processes, engaging with a set of stakeholders beyond experts and policymakers (Mendez et al., 2024). A more 'deliberative' form of democracy has been proposed (Willis et al., 2022). Deliberative democracy is concerned with reaching decisions through the 'force of the better argument' and reasoned debate within society (Habermas, 1984). This allows citizens to debate key political issues, developing public reason through shared values (Rawls, 1993). Conceptually, decisions are reached by citizens following a process of deliberation which results in collective, legitimate decisions. Many deliberative democratic theorists also point out its roots in critical theory, and therefore advocate that it should aim to challenge power structures (Thomspon, 2008). In practice, it is centred on evidence-based discussion, equal representation, and informed decision-making (Mansbridge et al., 2012).

There are a range of innovations that have developed from the school of deliberative democracy which aim to translate the ideals of the theory into practical spaces of debate, including consensus conferences, deliberative polling and planning cells (Smith and Setala, 2018). Deliberative innovations have been utilised by key institutions to strengthen democratic legitimacy, as current institutions fail to effectively engage with citizens and deal with complex challenges (Dryzek, 2002). This has seen a recent 'deliberative wave', characterised by an increase in processes centred on deliberation at the local, regional, and national level, and it has been claimed they can be effective at addressing complex, long-term issues ranging from constitutional challenges to climate change (OECD, 2020).

2.4 Deliberative mini publics

A key democratic innovation which has emerged from deliberative democratic thought is the 'deliberative mini public' (DMP). This process brings together a representative sample of a public, usually between 20-100 people, to debate key challenges or policy areas (Dahl, 1989; Mackenzie and Warren, 2012), often in the form of citizens assemblies and juries. The process usually involves a learning, discussion, and decision-making phase, facilitated by professionals with the input of government, industry, academics, and other key stakeholders (Willis et al., 2022). The DMP seeks to create a high-quality deliberative environment which can develop well-informed public opinion (Fishkin, 1997). The output of the process is a series of recommendations made by the DMP, which are then given to the appropriate decision makers to consider and implement.

The first generation of practice and debate on DMPs addressed them as a space to embody the ideals of deliberative democracy, focusing on their internal characteristics which make them an effective democratic innovation (Curato et al., 2020). Firstly, DMPs increase political representation, often through using sortition, to assemble a representative sample of the relevant population. This allows for a range of diverse perspectives to be involved in the decision-making process (Dryzek, 2002; Neblo, 2015), who may not usually interact with or be consulted on policy challenges. This allows for typically underrepresented or marginalised groups to be involved in and enrich the debate within a DMP. By ensuring the majority of demographics and views in society are represented, DMPs are able to attend to how policies may impact and be received by the wider public. Therefore, by incorporating diverse perspectives, DMPs create high quality deliberation and debate (Smith, 2009; Elstub, 2018), which improves the quality of decision-making.

DMPs are also designed to be 'neutral and unbiased' processes based upon evidence and reasoned debate (Smith and Setala, 2018). The arguments and evidence presented to participants is based upon the input of stakeholders who hold different positions within society and the debate, including

experts, industry, activists, and political actors. This, therefore, allows for all sides of the argument to be presented, alongside evidence, for participants to consider and deliberate with their peers. The deliberative setting created by a DMP aims to protect the process from entrenched interests which could influence participants (Mansbridge et al., 2012; Mackenzie and Warren, 2012). Participants can critically engage with their peers and other actors, resulting in decisions being taken on evidence and strength of argument, rather than on the influence of external, powerful actors.

DMPs, by design, aim to reach agreement by the end of the process and deliver a series of recommendations agreed on by most participants. Through working towards broad agreement, DMPs may be well-suited to complex and polarising issues, as they are able to bring individuals with opposing viewpoints together and attempt to work towards solutions. In some examples, citizens became more understanding of contrasting viewpoints throughout the deliberative process (Himmelroos and Christensen, 2014), supporting the idea that deliberation can produce democratically legitimate decisions at the point of disagreement on contentious policy issues (Thompson, 2008). Through deliberation, solutions can be provided and thus reduce polarisation on key political challenges (Orr and Powell, 2023). However, deliberation is plural rather than consensual (Curato et al., 2017), providing more benefits than simply reaching consensus. Deliberation seeks to identify sources of disagreement and mutual recognition of different viewpoints on political issues. This can offer detailed insights into different positions in areas of disagreement, and help the relevant political actors work towards solutions which reduce polarisation on policy challenges.

Given that DMPs create a space for deliberation, the outcomes of a deliberative process show us what a well-informed public would think had they had the time themselves to deliberate on the issue. Mass democracy suffers from some limitations which the DMP seeks to address. Most citizens don't have the time, resources, or desire to engage with every key political issue, which results in an under-informed public across many public policy topics. Therefore, those who have engaged with an issue in a deliberative setting alongside experts and their peers, are able to develop a 'refined' opinion, in which their position on an issue is transformed through the deliberative process. This could give decision makers key detailed insights into public opinion, which cannot be gained from more mainstream methods of collecting public opinion, such as polling data. This concept has been developed by Fishkin (1997; 2011) through deliberative polling, which seeks to understand what the wider public would think on an issue had they had time to deliberate on it. This is done through completing a questionnaire on a citizen's preferences on an issue at first contact, deliberating on the issue, and then completing the same questionnaire after the process, a method which has been tried and tested across many different countries and contexts (Fishkin, 2012).

Given that DMPs increase political representation, focus on evidence and reasoned debate amongst citizens, and aim to reach consensus, it is argued that DMPs can address challenging policy areas and develop solutions. However, a focus on DMP's internal qualities and ability to protect participants from the distortions of mass democracy neglects their potential ability to directly impact policy. In other words, their efficacy as a democratic innovation is futile if they are unable to impact decisions and policy. The second generation of practice and debate on DMPs has addressed this criticism by arguing that DMPs should be considered within formal governance processes, assessing their links to institutions and decision-making bodies. This approach looks to embed DMPs in democratic institutions, potentially enhancing their legitimacy and increasing their impact on policy (Curato et al., 2020).

2.5 Embedding DMPs in institutions

The call for considering the potential wider uses of DMPs beyond creating effective policy stem from the current crisis of legitimacy within democratic institutions (Curato et al., 2020). There has been debate over the role of the DMP as a supplementary governance tool used by institutions. Some DMPs are 'tightly coupled' with institutions, empowering them to have a direct impact on policy. Others are 'decoupled' or 'loosely coupled', advising or recommending courses of action to decision makers, with no legal mechanism to ensure the outputs of a DMP are implemented. Effective institutional coupling, in which DMPs are formally connected to decision-making bodies within a political system, can ensure that the outputs of a DMP are considered in the policy process (Hendriks, 2016), further working to strengthen democratic legitimacy and increase impact on policy. Utilising DMPs within current institutions as an additional tool for decision-making may increase trust in the policy process for participants (Bryant and Stone, 2020), by creating a two-way dialogue between decision-maker and citizen (Climate Citizens, 2022a; Ainscough and Willis, 2024).

There are differences in institutional connections across different DMPs, with some having formalised connections with legal footing such as the Irish Assembly, whereas others, are commissioned by other actors such as the German citizens assembly. This process was commissioned by civil society and had minimal or no formal connections with institutions (Boswell et al., 2023). An example of a tightly coupled deliberative process was the Oregon Citizens Initiative Review, in which the outputs of a deliberative process were fed back to the wider public, to inform citizens on a future vote (Setala, 2017). However, other national level climate assemblies, for example Climate Assembly UK, which was commissioned by six parliamentary select committees, could be described as having a 'loose coupling' with government. Despite the connection with government, the process aimed to produce advice and recommendations (Hendriks, 2016), rather than have a direct impact on decision-making processes.

The use of a DMP may increase trust in the policy process from the wider public, as it is 'people like us' who are co-designing policies and are working for the best outcomes for wider society (Warren and Gastil, 2015; Talukder and Pilet, 2021). This is supported across research on various deliberative processes, which concluded that that DMPs hold democratic legitimacy as 'people like us' were involved in the policymaking process (Pow et al., 2020; Geisler, 2023). The support for DMPs, in some cases, expands to wider public support for the specific policies they recommend. Empirical research suggests that hearing about a DMP increases approval for certain policies (Ingham and Levin, 2018; Boulianne, 2018), indicating that the wider public may view DMPs as a legitimate governance tool, as well as validating the argument that DMPs can create effective, socially acceptable policy. This also provides strength to the argument that DMPs should be used within decision-making institutions to help repair the distrust in current institutions, given their perceived legitimacy in the wider public sphere.

However, there have been legitimate concerns raised over the institutionalisation of DMPs. Embedding DMPs within institutions as a decision-making tool leads to questions over whether they will be able to challenge the institutions within which they are situated, a 'tight coupling' of DMPs and institutions (Hendriks, 2016). Institutions may use DMPs as a method of validation for pre-determined policies, and thus their scope for challenging institutions becomes limited (Hammond, 2019). The process may become 'co-opted' by the commissioning institution, which produces domesticated opinion, which may not reflect true public opinion. DMPs, therefore, could be used as tool to enhance perceived democratic legitimacy, without considering public opinion or implementing the recommendations.

DMPs have also received critiques for their participatory criteria and have been questioned as to whether they truly enhance democratic participation, and thus whether they should be utilised by decision-making bodies. This argument is centred upon the fact that the representative sample of society is achieved through sortition, which only selects a small number of people to be involved in the decision-making process, and therefore does not contribute to wider democratisation (Pateman, 2012). This may undermine democracy as it becomes selective of who is involved in the policymaking process, as opposed to all citizens having equal political representation in the form of an electoral vote, leading some to argue that the DMP is a 'democratic shortcut' (Lafont, 2019). The notion that the public would trust the policy recommendations of a randomly selected group of citizens has also been questioned, arguing that experts have more knowledge than the average citizen and thus make better decisions (Brennan, 2016).

This criticism has resulted in calls to consider the wider impacts of DMPs beyond both their internal characteristics and their ability to impact institutional decision making. This has resulted in a consideration of how DMPs may be able to shape and influence the wider political system. This, therefore, raises questions over what role DMPs could play in the wider democratic system (Curato et al., 2020; Jacquet and Van der Does, 2021). Currently, research and conclusions on the 'spillover' effects of deliberative processes on the wider political system remain tentative (Van der Does and Jacquet, 2023). Recent work in deliberative democratic thought has focused on the systemic integration of DMPs in the political system, assessing their broad societal impact.

2.6 The deliberative system

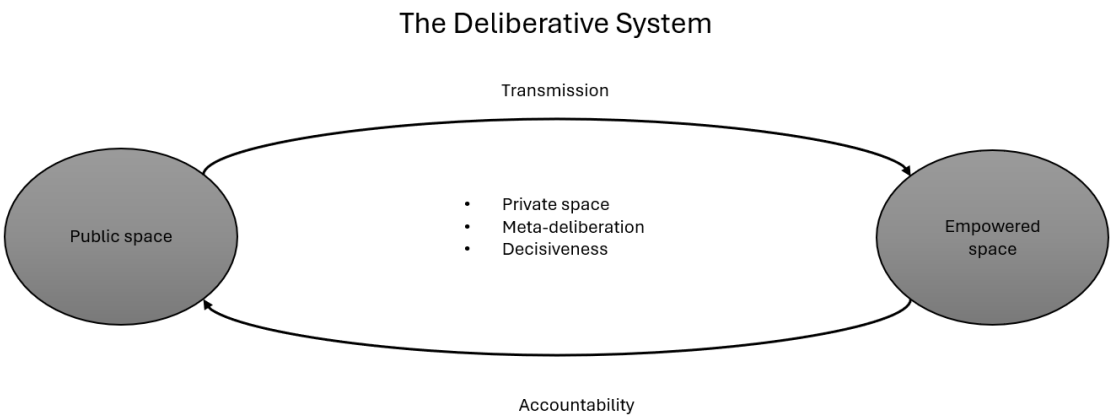
A development in better understanding DMPs in wider society has been the consideration of the 'deliberative system'. This situates individual sites of deliberation within the wider political system and considers how different elements of the political system interact. It focuses on how well different institutions and practices embody the ideals of deliberative democracy (Mansbridge et al., 2012; Neblo, 2015; Brown, 2018; Parkinson, 2018). This understanding recognises that decisions are not taken by one institution, rather they are the result of deliberation across multiple sites of interaction. This may include non-deliberative interactions, for example protests, which work to create a more deliberative environment by stimulating political debate (Fung, 2005). In other words, all political interactions can work to create a more deliberative environment, whether they are a defined space of deliberation or not. This conceptualisation, therefore, looks beyond the internal and institutional impacts of the DMP. This approach debates how they influence decision-makers and the wider public sphere of political debate, assessing how they could be successfully utilised within current political structures to strengthen democratic legitimacy. It has been suggested that DMPs could play a multitude of roles in the macro-political system ranging from informing public debates to testing the validity of pre-determined policy options (Goodin and Dryzek, 2006). The different roles DMPs could potentially play in the wider political system are summarised in table 1.

Table 1- Different understanding of the role(s) of the DMP in the wider political system

Function	**Explanation**	**Key sources**
Epistemic	DMPs develop well-informed opinion which reflect the broader public's preferences.	Fishkin (1991)
Legitimacy	DMPs enhance the legitimacy of policy decisions.	Mansbridge and Parkinson (2012)
Consultative	DMPs advising policymakers.	Setala (2021)
Integrative	DMPs can link different spaces in the deliberative system.	Dryzek (2002)
Accountability	DMPs scrutinise decisions and hold government to account.	Setala (2021)
Conflict resolution	DMPs work towards consensus on key issues.	Mansbridge and Parkinson (2012)
Policy innovation	DMPs create innovative solutions by introducing new perspectives into political decision-making.	Smith (2009)
Signalling	DMPs signal the wider public towards issues in policy and seek to enhance public debate.	Lafont (2019)

The deliberative systems understanding seeks to make sense of the different spaces where deliberation takes place within society. Stevenson and Dryzek (2014) identify seven components of the deliberative system as shown in Figure 1, to better understand how citizen deliberation can be integrated into democratic governance. The private space refers to the 'everyday talk' (Mansbridge, 1999), it is in this sphere where people deliberate informally in everyday interactions, often with friends or at work. The public space refers to more 'open and accessible' communication streams, for example news reports or social movements, these transmit influence and arguments to the empowered space, in which decision-making institutions are located. The performance of the system against deliberative democratic ideals depends upon the ability of the system to produce collective and legitimate decisions (decisiveness), as well as the system's ability to reflect on itself (meta-deliberation).

Figure 1- The components of the deliberative system, adapted from Stevenson and Dryzek (2014)



2.7 The signalling role of the DMP

A systems conception of deliberative democracy allows for a wider exploration of the impact of the DMP on public debate. On the premise that DMPs are viewed as legitimate by the wider public, some have suggested that they are able to play a 'trusted information' authority role, supplementing forms of representative government (Mackenzie and Warren, 2012). Due to the pluralistic nature of modern society, mass democracy is limited in engaging in political issues, and thus DMPs can serve as information proxies to the wider public (Warren and Gastil, 2015). DMPs, through this understanding, can 'signal' the wider public towards political issues which need further attention and debate. Whilst this is dependent on the appropriate channels to relay the outputs of a DMP to the wider public (which this research will not explore), this could work to improve the overall quality of the deliberative system, and the arguments formed within DMPs could affect wider discussions in the maxi-public. This would see DMPs not as a 'democratic shortcut', rather contributing to the wider participation in political debate (Lafont, 2019).

Lafont (2019) argues that rather than appointing DMPs as decision-makers, they should take a participatory track and seek to create a dialogue between the DMPs and the wider population. In other words, DMPs are an 'institutional means to an end', working to impact political debate and reach collective, legitimate decisions. Through DMPs, the wider public can be signalled towards and informed on key issues and gaps in government policy which can contribute to wider public deliberation, thus encouraging more participation in political debate. This could work to hold authority accountable and apply pressure on power structures to act, which could be crucial for climate policy. This 're-politicisation' of deliberative democracy (Parkinson, 2018), in which DMPs flag up issues to the wider public, will ensure that key actors such as government and the fossil fuel industry can be held accountable against their responsibilities to net zero. Thus, DMPs could play a role in scrutinising and checking government progress on climate policies (Setala, 2021).

Understanding DMPs as a 'signal' to the wider public further ensures that DMPs contribute to more participation in political debate. Lafont (2019) argues that the decisions made by DMPs are only legitimate if the majority of the population reach the same conclusion as the DMP. The wider public should not 'blindly defer' to the conclusions of the DMP, rather they should go through a similar deliberative process, stimulated by the outputs of the DMP, reaching their own conclusion and position on an issue. By signalling gaps between the transformed preferences of the DMP and the preferences of the wider public, citizens who have limited time and access to political debate and resource, are able to consider whether the position of a DMP is justified, thus working to improve the deliberative quality of the political system.

2.8 Climate assemblies in practice

Many DMPs, at the local, regional, national, and international level (OECD, 2020), have taken place across the world in recent years during the deliberative wave, with wide-ranging impacts across different contexts. These have been observed predominantly in Europe and the UK, with a marked increase in citizens assemblies and juries taking place on key policy challenges, particularly climate. There has now also been a Global Citizens Assembly established on the climate and ecological crisis to debate how climate change should be addressed at the international level (Global Assembly Team, 2022). The upsurge in climate assemblies has been particularly in prevalent in the UK, with a significant number of local authorities commissioning assemblies, as well as two national assemblies being convened to develop climate policies.

At the local level, over 300 local authorities in the UK have declared a climate emergency (LGA, 2023). However, at the time of declaration, only 2% of local authorities had a plan for delivering a net zero target (Gudde et al., 2021). For net zero specifically, there is a clear need to develop policy that addresses the unique needs and challenges of different localities (Murphy, 2015; Bridge and Gailing, 2020). The declaration of climate emergencies has seen a significant rise in local authorities commissioning deliberative processes, with 49 climate assemblies or similar processes recorded in the UK (KNOCA, 2024). The majority of UK councils have now published a plan to reach their net zero target (CAPE, 2024), with some being informed by the outputs of DMPs. DMPs have been used by local authorities to engage with citizens on how to best deal with climate change locally, working to develop policies to empower citizens to make the necessary changes to reduce emissions, across issues such as transport, housing, and food.

The first notable impact of DMPs on climate has seen an increase in the participants' support for action on climate. Through the process of deliberation, in many cases, participants in the process became more concerned about the climate crisis and advocated for further and more urgent action

(CAUK, 2020; UKRI, 2023). This has resulted in national-level climate DMPs tending to propose more ambitious strategies than national government (Willis et al., 2022) and thus possibly challenging government on their policies and encouraging further action. This was evident in the CAUK process in which citizens voiced concerns over carbon capture and storage, preferring a focus on renewables (CAUK, 2020; Willis et al., 2022). Equally, however, other processes reveal that there is a distinct lack of knowledge about the changes that need to be made to reduce emissions, despite high concern. An example of this is a citizens panel on home energy decarbonisation, which revealed that citizens wanted more education on the steps they could take to reduce emissions (Climate Citizens, 2022b). The desire for more education and effective communication was not unique to this process, as the national-level UK assembly made this their top priority, as well as a public dialogue process ran by UKRI and a citizens jury on advertising high carbon products and services (CAUK, 2020; UKRI, 2023; Climate Citizens 2024). This is a key learning for the net zero transition, indicating that more education and support is needed to allow citizens to understand what they can do to contribute to emissions reductions.

DMPs, through their recommendations, have also advocated for further public participation and engagement processes. Positive experiences and outcomes of a deliberative process have seen deliberation move to other key policy issues, thus supplementing more traditional democratic practices and further deepening the dialogue between citizen and decision maker (Bryant and Stone, 2020; Sandover et al., 2021). Research undertaken on CAUK found that 90% of members thought that citizens assemblies should be used to 'inform government and parliament decision-making', and 88% reported having more confidence in the policy process (CAUK, 2020). In addition, the UKRI public dialogue process also recommended that there should be a two-way dialogue process created between government and citizen on climate adaptation (UKRI, 2023). This suggests that those involved in a DMP value the process and can see the added value of utilising them more widely.

However, DMPs have yet to make a significant impact on policy in the UK and in other examples to date (Brown, 2018) and there have been several explanations offered as to why this has been the case. It has been argued that in the UK, there have been complex processes of internal and external pressure which have forced local authorities to host a citizens' assembly on climate, despite having a limited understanding of their role within the political system and a limited commitment to the process. This may lead to a poorly designed DMP, without stated goals and intentions of the process, which could result in limited outcomes (Bryant and Stone, 2020). Furthermore, the limited resources, devolved power, and funding available to the commissioning local authority (Dodd et al., 2023; British Academy, 2024) has meant that recommendations have been difficult to deliver, resulting in a 'messy politics', causing frustration for citizens who were involved in the process, as their

recommendations were ignored and the assembly was viewed as an 'empty gesture' (Lewis et al., 2023).

There have also been criticisms of DMPs and their ability to challenge power structures and the political 'status-quo'. It has been suggested that DMPs could be used as a legitimising instrument by government and authority (Pateman, 2012), with citizens only there to validate pre-determined policies set by the relevant authority (Boker, 2017; Hammond, 2019; Ufel, 2021). Machin (2023) argues that DMPs are unable to 'rupture the regime by which they are instituted', arguing that processes become co-opted by the commissioning institution. This is a particular issue for deliberative processes which are top-down (Cherry et al., 2021; Ufel, 2021), allowing decision makers to 'cherry-pick' proposals which suit their political agenda and ignore those that don't (Willis et al., 2022). This was observed in the French Citizens Convention on Climate Change (FCCC), in which 150 citizens were brought together to discuss equitable strategies for reducing greenhouse gas emissions (FCCC, 2020). Despite President Macron's promises to adopt the recommendations, they were not incorporated into policy, with no legal or political structure to enforce the development of the proposals (Cherry et al., 2021).

Equally, more bottom-up approaches to DMPs have received criticism for their 'generalised' recommendations (Font and Smith, 2013; Ufel, 2021). Research undertaken on the CAUK process found that the recommendations failed to engage with the technical and complex aspects of climate policy (Elstub et al., 2021). It has been noted by practitioners in the field that the framing of the question and facilitation is highly important, as a wide-framing and bottom-up approach will be more citizen-led, yet may lack policy detail (Bryant and Stone, 2020). Furthermore, Wells et al. (2021) highlighted that the recommendations made by the Leeds Citizens Jury, a citizen-led process, were general and therefore difficult to implement for policymakers. The findings of the work done by Wells et al. (2021) also show that Oxford Citizens Assembly, when taking a more top-down approach, tended to validate the local authority's pre-existing policies. This, therefore, calls into question the role of the DMP in the policymaking process and wider political system, and whether they can make a meaningful impact on climate policy.

Much research has focused on the role and impact of climate DMPs in the context where they were held, which has revealed key learnings across DMPs. There has been less attention paid, however, to the wider systemic role that DMPs might play within UK climate politics. DMPs could play a 'signalling' role, in which they point the wider public and other actors to key policy challenges which need wider political deliberation, working as an 'informational proxy'. This argument, as presented by Lafont (2019), suggests that DMPs should not have the ultimate power to make decisions given their

limitations, rather they should provide information cues to the wider public, signalling towards key policy areas which require more attention and debate.

To date, DMPs have been unable to perform this role, with their recommendations having limited impact on political decision making. This can be explained by the messy political context within which they take place (Lewis et al., 2023), their design or implementation, or the lack of communicatory mechanisms in place to relay their outputs to the wider public. Nevertheless, this research seeks to understand whether DMPs support ambitious climate action which could provide signals to the wider public, to transform preferences on UK climate policy to facilitate support for climate action.

3. Methods

This research seeks to review the large body of climate DMPs which have taken place in the UK and to assess whether these processes may contribute to transforming public preferences on climate policy. The first research question will be explored through a synthesis of the recommendations and outputs of 30 climate DMPs which have taken place in the UK from 2019-2023. This identifies which policies UK climate DMPs support and establishes a detailed picture of what an informed UK public want to see happen with regards to dealing with climate change. This will also identify the contexts within which DMPs take place and how they are designed and delivered, developing insights into their utility as a democratic tool. The second stage of the research collects publicly available polling data from the same period; to identify where deliberated (DMPs) and non-deliberated (polling) public opinion converge and diverge on UK climate policy.

Given that research on DMPs has generally tended to focus on their internal qualities and their links to institutions, this research aims to contribute to our understanding of DMPs in the wider public sphere. The research seeks to assess the claim by Lafont (2019), that rather than DMPs being appointed as decision-makers, DMPs instead are a supplementary tool to democratic institutions. They work to improve the deliberative quality of the political system by playing a signalling role to the wider public and other political actors, providing informational cues and informed public preferences on key policy challenges. Therefore, it is important to identify whether the transformed public opinion developed in DMPs is substantively different from non-deliberated public opinion derived from polling data. If there are differences between DMP and polling preferences towards climate policy, DMPs could work to stimulate political debate by signalling the public sphere towards areas needing attention with regards to policy and debate. This could help gather more support for transformative climate action. This research therefore will be explored through the following three research questions:

- What climate policies do DMPs in the UK propose?
- Where do DMPs and polls converge and diverge on UK climate policy?
- What role could climate DMPs play in the net zero transition?

3.1 DMP synthesis

Firstly, a database for all climate DMPs which had taken place in the UK was created. This enabled an identification of, gathering documentation on, and recording meta-data for the full ‘universe’ of UK climate DMPs. This process collected information on climate DMPs that had taken place in the UK from the Knowledge Network On Climate Assemblies (KNOCA) and facilitation company websites including Shared Future, Involve, Institute for Public Policy Research, and Ipsos Mori. This process

identified 36 possible DMPs which were classed as climate assemblies or juries that could be used for analysis. This database therefore stored data on all the UK climate DMPs with the following information for each process: location, commissioner, framing question/topic, dates held, number of participants, sampling style for recruitment, expert facilitation group, and whether they had an independent advisory board and had published their recommendations. For inclusion in the analysis, a set of criteria was established for the DMPs and had to meet the following requirements:

- Climate change is part of or used to frame the guiding question of the process.
- Representative sample of the relevant population.
- More than 20 participants included in the process.
- Original input from expertise and time for participants to engage with experts.
- An independent advisory board or steering group appointed.
- Involvement of facilitation or deliberation expertise.
- Official recommendations have been published.

30 of the 36 UK climate DMPs met the criteria and were thus included in the analysis. The final 30 DMPs included in the analysis, along with their details, can be found in Appendix A. An initial analysis was completed, which identified the commissioning bodies of these processes, controlling political party at the time of commission, and whether they were situated in urban, rural, or national contexts. The 30 DMPs were then listed in a new database, alongside their recommendations or outputs. Due to the variety of facilitation organisations who had ran the 30 processes, the recommendations were reported in various ways. All recommendations from the included DMPs were listed, with each recommendation or policy option included as stated in their report, or if a voting process was used, any policy option gaining over 50% support was included. An outlier to this was the Oxford Citizens Assembly, in which participants voted on their preferred scenario, with associated policies, across different sectors, from least ambitious to most ambitious. Scenarios which were preferred by over 50% of participants were included in the analysis, alongside their associated policies.

Following the initial analysis of the processes and collecting their outputs, the recommendations were then clustered into the following sub-sectors as set out by the CCC: cross cutting enablers, surface transport, buildings, agriculture and land use, waste, electricity supply, aviation, industry, fuel supply, shipping, and F-gases. The research took a bottom-up approach to allow familiarisation with the data, due to the variety in the way the recommendations were reported across different processes. The recommendations underwent a hierarchical coding system to disaggregate the recommendations using the following codes: overall policy aim (R_1), specific policy mechanisms (R_2),

and policy suggestions (R_3). This therefore provided detail on the level of specificity of the recommendations across different processes, as well as identifying what the recommendations were trying to achieve.

R_1 and R_2 codes were then listed within each sub-sector alongside the process they were recommended in, and similar recommendations were aggregated under new wording which best reflected the underlying recommendations. For example, similar policy recommendations which sought to make public transport cheaper were grouped together under a new 'aggregated recommendation' which best reflected their aim. The aggregated policy recommendations used for each sector can be found in Appendix B.

Recommendations were assigned to the aggregated recommendations following the initial 2-stage process. The process involved assigning a code to each of the aggregated recommendations, for example S1 (surface transport, aggregated recommendation 1). The recommendations from the DMPs were then analysed by sector, and if they recommended one of the aggregations, they would be assigned that code. Any recommendations which were not directly related to climate were excluded. Multiple aggregations could be met within one recommendation. Equally, a DMP could not make the same aggregated recommendation more than once.

To assess levels of support for each 'aggregated recommendation' across the DMPs a 'support score' was calculated. This was done by identifying how many DMPs had made a recommendation, and how many could have reasonably made a recommendation. This was a subjective judgement, dependent on factors including location and geography, as well as what could have been reasonably discussed within the framing of the question and the scope. This was calculated by taking the number of DMPs who actually made a recommendation and dividing by the number which could have reasonably made it, giving a percentage. This revealed how well supported specific recommendations were within DMPs that could have made that recommendation.

The DMPs report their recommendations in different ways, with some stating a specific percentage of support amongst participants, others only reporting a recommendation if it gained over 50% of support from the assembly, whereas others state their recommendations with no indication of a level of support. Therefore, the analysis was unable to capture or incorporate the percentage of DMP participants overall across the processes who endorsed a particular policy.

Given that most of the DMPs framing questions were wide-ranging and focused on 'addressing climate change' or similar wording, most of the DMPs could have reasonably made most of the recommendations. Only the Brighton and Hove process was specific to a single area of climate policy,

transport, and thus could only make recommendations on transport emissions, excluding this process from making recommendations from all other sectors. This resulted in the denominator for support score calculations for cross-cutting enablers, buildings, and waste being 29 due to the exclusion of this DMP. However, the analysis was flexible, and it was judged that Brighton could make some wide-ranging policy recommendations stated in the cross-cutting enablers section and these were assessed accordingly. An example of this is the 'public communications and education programme on climate' which was in the cross-cutting enablers sub-sector but was recommended by Brighton and Hove, which focused on educating people on climate to encourage reduced emissions from transport.

In some cases, the support score of a policy did not reflect significant support across all the DMPs. For example, the recommendation 'introduce a frequent flyer levy' has a somewhat misleading support score. Of the 30 DMPs, only 3 processes made this recommendation, 10% of the total DMPs included in the analysis. With 28 of the 30 processes being locally focused and centred on localised solutions to climate, it was judged that these processes could not have developed aviation recommendations. However, when reviewing the question framing and the topics discussed during the processes, only three processes could have realistically made this recommendation. These were the national-level assemblies of Scotland and Climate Assembly UK, and the Leeds Citizens Jury, which discussed aviation as a local issue due to the proposed expansion of Leeds-Bradford Airport. This meant that aviation was discussed by citizens during the process and solutions to reducing aviation emissions were proposed. Therefore, only three processes could have reasonably made this recommendation and three made it, therefore scoring a support score of 100%.

Similarly, it was judged that only 11 DMPs could have reasonably made recommendations on the agricultural sector, based upon their geography and location, as well as the framing question. Whilst most of the processes were based in urban areas, some of these locations had significant rural populations in the surrounding areas or made recommendations on farming and thus had to be included. The 11 DMPs deemed to have been able to make recommendations on the agricultural sector were Furness, Herefordshire, Blaenau Gwent, Copeland, Jersey, Devon, Kendal, Thurrock, Aberdeenshire, Scotland, UK.

3.2 Polling synthesis

This method identified publicly available polling data on public attitudes on climate policies in the UK from 2019-2023, the same time frame as the DMP analysis. A structured literature search was completed using Scopus on 11/04/2024 using the search terms TITLE-ABS-KEY ("climate policy" OR "net zero" OR "emissions reductions") AND ("survey" OR "polls" OR "public attitudes" OR "public

opinion") AND ("UK" OR "England" OR "Scotland" OR "Wales" OR "Northern Ireland"), returning 75 potential academic sources. After reading the titles and abstracts, two potential sources were identified.

A structured media search was also completed using Nexis on 16/04/2024 using the search terms ("climate policy" or "net zero" or "emissions reductions") and ("polls" or "polling") and ("UK" or "England" or "Scotland" or "Wales" or "Northern Ireland"). This search was further narrowed by searching in the time from 01/01/2019 to 01/08/2023, limiting source type to newspaper only, allowing moderate similarity, limiting geography and publication source to UK only, and excluding the phrase 'election'. This search returned 482 potential results, and after reviewing the titles and abstracts 110 potentially useful sources were identified.

Following both the literature and media searches, 13 publicly available polling sources were identified which were collected for the analysis. Data came from various sources including YouGov, Ipsos Mori, Centre for Climate Change and Social Transformations (CAST), OECD, Survation and Greenpeace, Opinium and Bright Blue, and More in Common, and Onward and JL Partners. All polling data came from nationally representative samples in the UK context, sample sizes ranged from 1-8,000, covering a range of key areas in UK climate policy. The full list of polling data including sources, dates conducted, and links to the data can be found in Appendix C. All polling data collected also included the level of support of those policies. The pieces of polling data were then placed into their appropriate CCC sub-sector, following the process of the DMP analysis.

The polling data was not included explicitly in the report given that it is ill-suited to direct comparisons with the DMP recommendations. Firstly, polling data tends to address more concrete policies, whereas the DMP recommendations tend to be broader statements capturing similar but slightly different policies. In addition, the polling data collected had various sample sizes and were reported at different times throughout the 2019-2023 period, as were the DMPs. Finally, the DMPs were mostly held in specific contexts and locations, whereas the polling data was nationally representative. Rather, the analysis aims to identify high-level emerging trends from UK DMPs as a whole and UK-based polling data on climate policies.

3.3 Comparative analysis of DMPs and polls

The polling data was then aggregated using the same aggregations as used in the DMP analysis. This aimed to put polling data which matched up to the DMP recommendations together to be compared. The polling results which did not fit underneath any of the aggregated recommendations were placed in a separate category. This analysis identified policies which are regularly covered in polling, issues which are covered in both polling and DMP recommendations, and which issues DMP

discuss that polling does not. Policies and topics which were discussed in both spaces were then further explored, looking at the level of support shown in the polls and the types of recommendations made by DMPs in this area to assess where polling and DMP opinion converges or diverges.

Polling data relating to the same or similar policies were grouped together and were subsequently grouped with DMP recommendations which focused on the same issue or policy challenge. Firstly, this allowed for an identification of key policy areas that both DMPs and polls have considered, whilst secondly assessing the level of support in the polls. After this initial grouping, a narrative summary was completed to identify where DMPs and polls agreed, disagreed, or had differing levels of focus and scrutiny across different policy areas.

Identifying where DMPs and polls converge and diverge on UK climate policy opens debates on whether DMPs could fulfil a signalling role in climate politics. Given that it is theorised that DMPs produce well-informed public opinion through the process of deliberation, it matters whether the opinion that is produced is substantively different to wider public opinion. Therefore, where DMPs diverge from the polls, they may be able to signal the wider public towards these specific issues, influencing debate and potentially fostering support for climate action. Where DMPs and polls converge, there can be confidence that action on these policy areas are broadly well-supported across the public. Finally, if DMPs cover issues that polls do not, they could signal towards areas needing more attention and debate.

3.4 Limitations

The aggregation method applied in this research aims to group together the recommendations made by all the DMPs to find areas of consensus and identify the most well supported policies generally. However, by 'grouping' similar recommendations together, there is inevitably specific policy detail lost through this process. However, there are many different ways the processes have been run and reported, thus producing significantly different recommendations, which made the process of bringing together recommendations challenging. In addition, as many of the processes were run locally, they focus on specific local areas or spaces in their recommendations. By being too specific in what was grouped, very few patterns would have emerged from the research. The method developed allowed for priority areas to be identified, as well as show the types of policies which tend to be well supported.

The support scores calculated are likely to be underestimates, given that it is highly unlikely that all 30, or a high proportion of DMPs could have reasonably made a recommendation, despite the framing questions and topics covered suggesting so. The DMPs included in this analysis were

facilitated by 11 different organisations and thus different facilitation styles may have directed participant conversations differently. Equally, whether the processes were more bottom-up or top-down would influence on the types of policy options recommended. Finally, the internal dynamics of a DMP and its discussion, driven by different groups of people and individuals, may discuss some issues more than others. Therefore, this would have been a subjective judgement which would have been inaccurate, and thus basing how many DMPs could have reasonably made a recommendation based on the framing question and the specified topics in the reports was deemed the appropriate method. The support score system used in this research aims to develop a relative rather than absolute scale which highlights priority policy areas and the types of policies preferred.

The research aims to identify the types of 'signals' that DMPs may send to the wider public and other political actors on climate change, given that they have transformed their preferences through the deliberative process. However, the transfer of the opinion developed within a DMP to the wider public sphere is entirely dependent on whether there are appropriate channels of communication to the wider public. To be able to effectively 'signal', the DMPs need to be heard about, which is not necessarily the case. This research will not explore the channels of communication through which these signals could be transferred to the wider public, rather aiming to identify the signals DMPs could send if the channels of communication were there to publicise the outputs of a deliberative process.

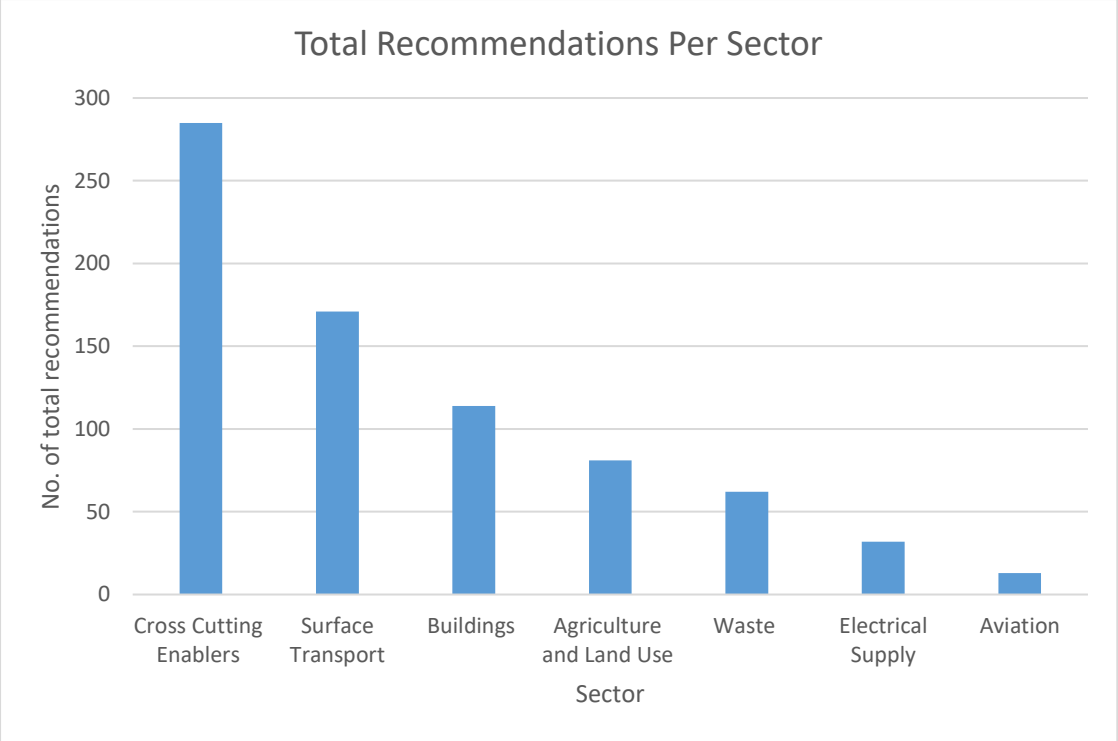
4. Results

This section will report the results of the DMP synthesis and the comparative analysis with the polling data. Firstly, a summary of the synthesis will be given, indicating which sectors received the most recommendations (figure 2) from the DMPs and how this was broken down into the aggregated recommendations (figure 3). It will also show the commissioning bodies of the DMPs included in the analysis (figure 4), their geographical context (figure 5), and the controlling political party at the time the DMP was commissioned (figure 6). Table 2 presents the top 10 most-supported recommendations across all the DMPs, showing which sector they came from and their support score. The analysis will then discuss each sub-sector in detail, presenting the DMP's preferred policy options (figure 7). The polling data will be introduced, highlighting where public opinion derived from DMPs and polling converge and diverge on different areas of UK climate policy (figure 8).

4.1 Summary of DMPs and recommendations

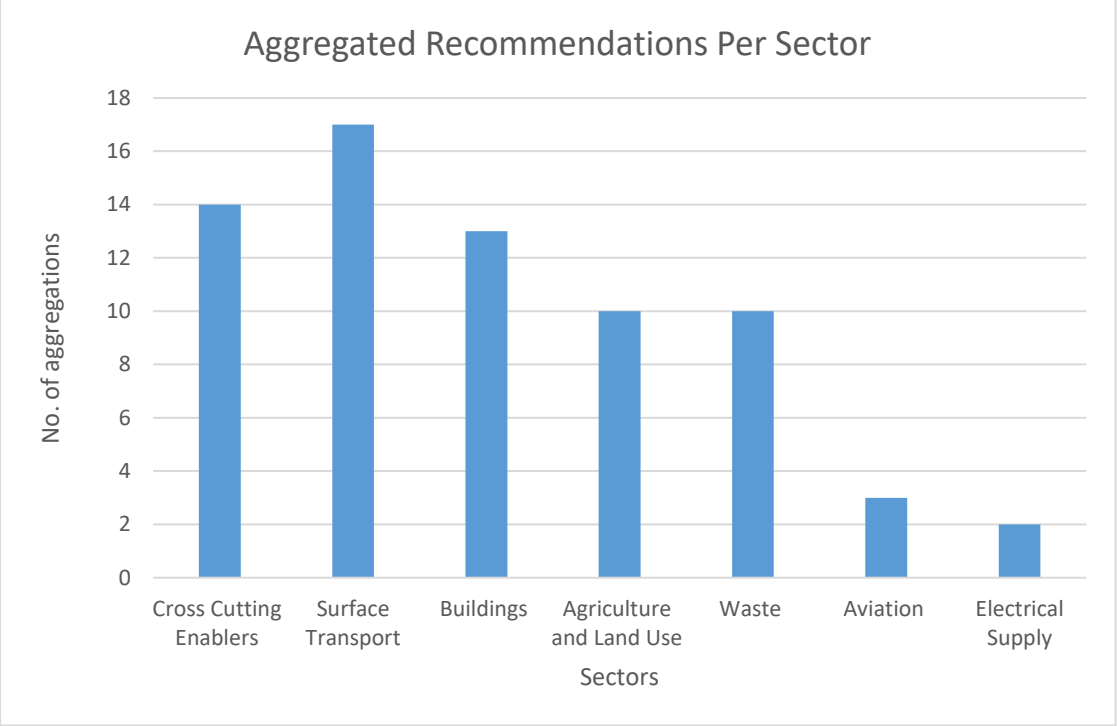
Across the 30 processes, there were 758 recommendations which were included in the study (figure 2). As expected, the cross-cutting enablers sub-sector contained the most recommendations of all the sub-sectors included in the study, with 38% of the total recommendations falling underneath this sub-sector. Surface transport, followed by buildings, agriculture and land use, and waste had the next highest quantity of recommendations. Electrical supply and aviation had limited recommendations, with only 4% and 2% of recommendations categorised under the sub-sectors, respectively. This may indicate a hierarchy of which sectors DMPs felt needed the most policy development.

Figure 2- Bar chart showing the total number of recommendations per sector across all DMPs



Following the aggregation process, the surface transport sub-sector had the highest number of aggregated policy recommendations, with 17 (figure 3). This highlights the level of variation in the policies suggested across the DMPs within each sub sector. This was followed by the cross-cutting enablers section, then buildings, agriculture and land use and waste with 10 aggregations each. There was limited variation in policy suggestions on aviation and electrical supply, with only 3 and 2 aggregations respectively.

Figure 3- Bar chart showing the number of aggregated recommendations per sector



Of the DMPs included in this study, 3 were held at 'national level' (UK, Scotland, and Jersey), whilst 27 were held at the local level. 81% of the locally focused DMPs were commissioned by councils, while the remaining 19% were convened by partnership groups or commissions, consisting of various stakeholders (figure 4). Additionally, 78% of the DMPs held at the local level were situated in urban contexts, with only 6 of the 27 local processes being held in rural areas (figure 5). Councils under the control of the Labour Party commissioned the most DMPs, with 14 of the 30 processes being commissioned by Labour councils (figure 6). This may indicate that DMPs are utilised more often in urban contexts and by left-leaning councils.

Figure 4- Pie chart showing the commissioning bodies of the 30 DMPs included in the analysis

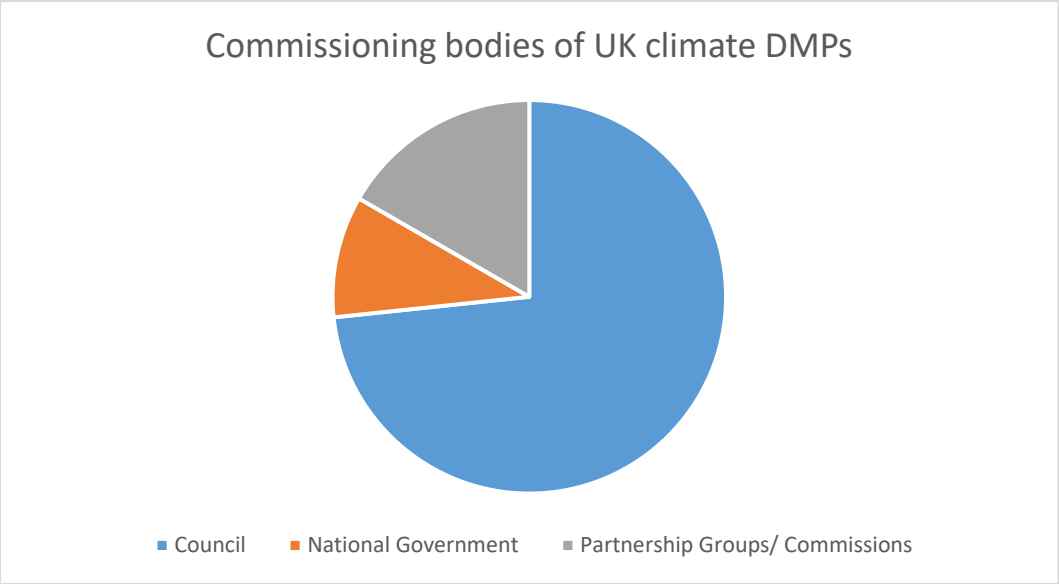


Figure 5- Pie chart showing the geographical spread of included DMPs, whether they were held in urban, rural, or national contexts

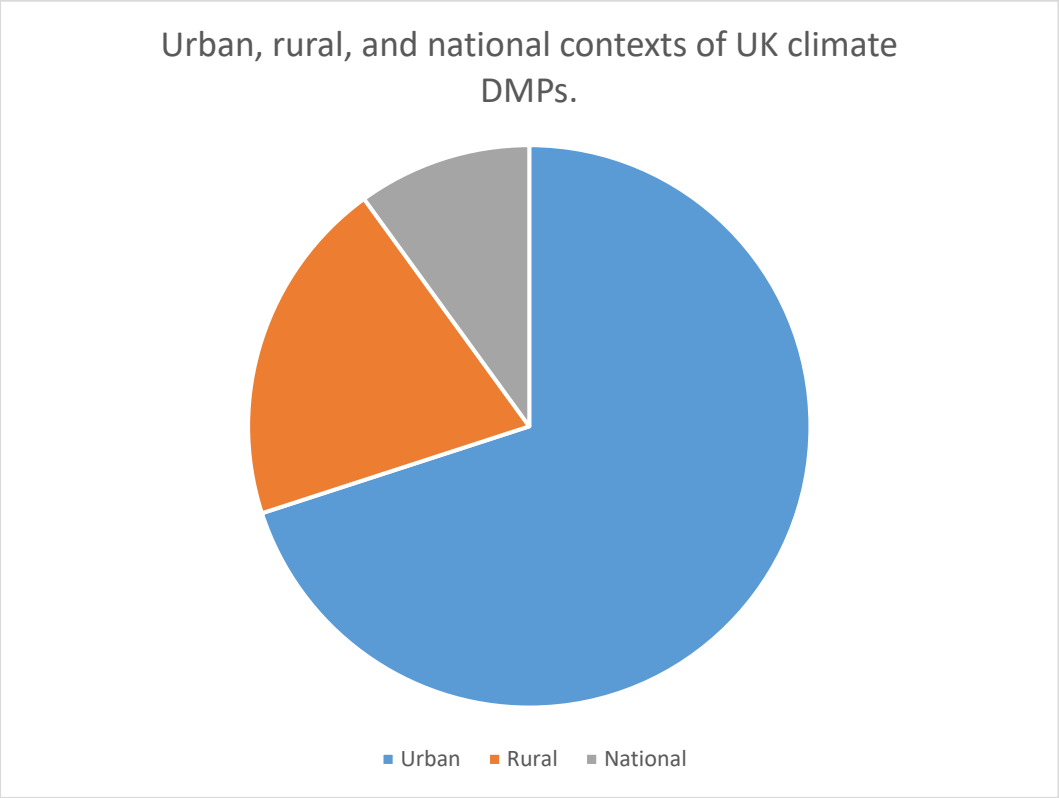
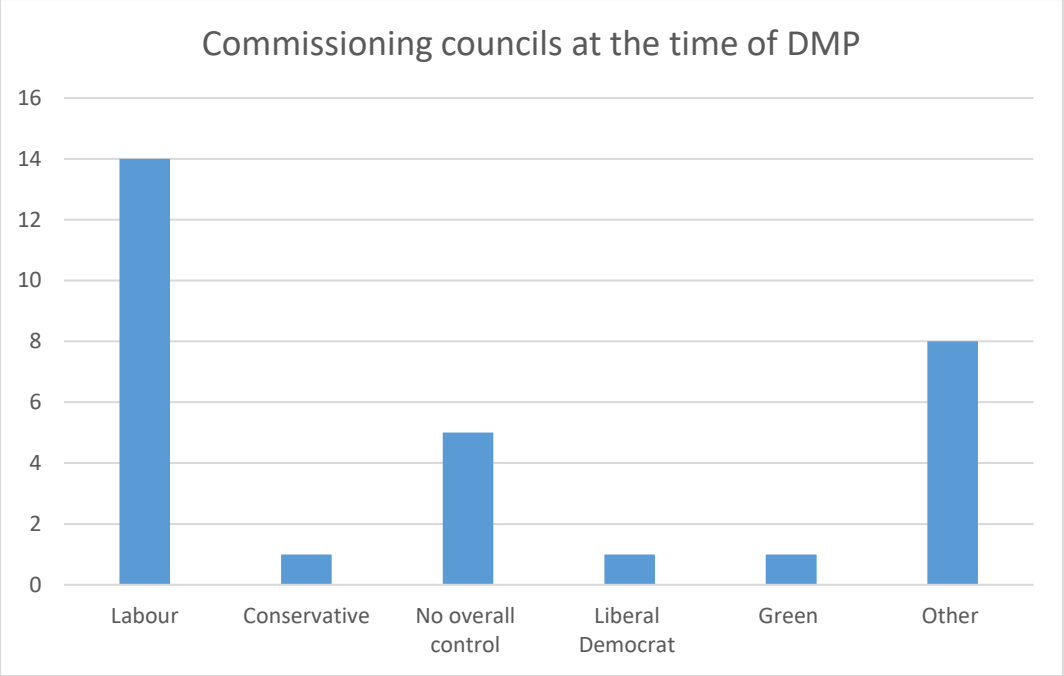


Figure 6- Bar chart showing the controlling party of councils at the time the DMP was commissioned



4.2 DMP synthesis

Table 2- Top 10 most supported aggregated recommendations across all DMPs

Rank	Aggregated Recommendation	Sector	Support Score
1	Public communications and education programme on climate change.	Cross Cutting Enablers	87%
2	Promote and improve active travel options.	Surface Transport	73%
3	Make public transport more accessible and joined up.	Surface Transport	67%
4	New builds to be compatible with net zero.	Buildings	66%
5	Increase access to information and advice for homeowners on retrofitting.	Buildings	66%
6	Introduce additional financial support for homeowners to undertake retrofit work.	Buildings	66%
7	Make public transport more affordable.	Surface Transport	63%
8	Greater citizen involvement in policymaking and scrutiny	Cross Cutting Enablers	50%
9	Ensure recycling facilities are widely available and easy to understand.	Waste	48%
10	Climate crisis to be central to all planning and policy decisions.	Cross Cutting Enablers	47%

The DMP synthesis indicates that there is strong support for more education and communication on climate change. It also reveals that reducing emissions from transport and buildings is a priority. The recommendations indicate a desire for more active travel options, as well as cheaper and more accessible public transport. DMPs also strongly support recommendations which support increasing energy efficiency in the home, through new net zero housing standards, increased advice on how changes can be made, and more financial support. Other well-supported recommendations focus on governance changes, advocating for more citizen involvement and a greater consideration of climate change in decision making processes.

Figure 7- Most supported recommendations across DMPs in each sector with support scores bracketed. Support scores indicate the proportion of DMPs who made a recommendation that could've reasonably made that recommendation.

Cross Cutting Enablers	Surface Transport	Buildings	Agriculture and Land Use	Waste	Aviation	Electrical Supply
Public communications and education programme on climate change (87%).	Promote and improve active travel options (73%).	New builds to be built compatible with net zero (66%)	Create new and protect existing green space (47%)	Ensure recycling facilities are widely available and easy to understand (48%).	Introduce a frequent flyer levy (100%).	Develop local plans for renewable energy generation (28%).
Greater citizen involvement in policymaking and scrutiny (50%).	Make public transport more accessible and joined up (67%).	Increase access to information and advice for homeowners on retrofitting (66%).	Establish incentives and support for farmers to adopt sustainable practices (45%).	Introduce local repair and recycling hub (41%).	Invest in sustainable aviation fuels and technologies (67%).	Support local community energy schemes (24%).
Climate crisis to be central to all planning and policy decisions (47%).	Make public transport more affordable (63%).	Introduce additional financial support for homeowners to undertake retrofit work (66%).	Plant new and protect existing trees and carbon stores (43%).	Public information and awareness raising campaign to promote recycling (31%).	Introduce a carbon tax on flights (67%).	
Greater transparency of climate targets and performance of the public and private sector (43%).	Invest in electric vehicle charging infrastructure (47%).	Introduce new options for homeowners to finance retrofit (21%).	Mechanisms for enabling unused/abandoned land to be used for climate-related activities (31%).	Mechanisms to encourage shops to reduce food waste (31%).		
Encourage low carbon sustainable diets (38%).	Invest in decarbonising public transport (43%).	Increase minimum energy efficiency requirements for renting a home (21%).	Create more allotments to support local growing (28%).	Reduce or ban single use plastics (24%).		

4.2.1 Cross cutting enablers

This section had wide-ranging policy recommendations, however clear patterns and themes emerged from the analysis. The recommendations focused on several key areas, including education, diet, governance, and industry. The results highlight a desire for education, citizen involvement, and an increased consideration of climate in planning and policy decisions. However, there were only two aggregated recommendations which received over 50% support.

87% of DMPs recommended a public communications and education programme on climate change and was the most supported policy on climate. This recommendation often included sub-recommendations such as introducing climate change into the school curriculum, educating on specific behaviour changes, and the use of social media as a means to communicate and educate on

climate change. The second most supported policy in this sub-sector was to ensure greater citizen involvement in policymaking and scrutiny, with 50% of DMPs making this recommendation. Many of these recommendations stated that the DMP should reconvene to assess progress on delivering the policy recommendations of the assembly. Others suggested that citizens should have a continued role in the governance of net zero by establishing a permanent citizens assembly, or a mixed body of experts and citizens, to support local decision-makers. There was also support for ensuring that climate change became central to planning and policy decisions. This recommendation centred on proposals advocating for increased regulation and mechanisms which ensured climate was considered in all government and council decisions.

4.2.2 Surface transport

Surface transport had the most aggregated recommendations of all sectors, indicating that there were many issues addressed and policy recommendations proposed, with recommendations covering active and public transport, electric vehicles, reducing the use of private vehicles, and re-designing urban spaces. This sub-sector was a key focus for all DMPs, with 3 of the top 10 recommendations coming from this sub-sector.

The recommendation which received the highest support across DMPs was to improve active travel options and infrastructure, which was the second highest supported recommendation overall. These proposals often cited the need for more cycle lanes, further provisions for bike storage in workplaces and on public transport, and improving cycling safety. Public transport was also a priority for DMPs, with policies seeking to make public transport more joined-up and accessible, as well as more affordable. These recommendations received support scores of 67% and 63% respectively. Many DMPs, as part of those recommendations, advocated for an integrated transport system for their local areas which incorporated all forms of transport- buses, trains, cycle hire and others. There was also 43% support for decarbonising public transport, however this was seen to be less of a priority than the improvements to accessibility and affordability.

There was also a recognition of the need for increased and improved electric vehicle charging infrastructure to encourage the take-up of electric vehicles, receiving 47% support across DMPs. These recommendations included asking local authorities and businesses to install electric charging facilities on their premises, as well as providing incentives such as reduced parking fees. Introducing subsidies to help people purchase electric vehicles received lower support than improving charging infrastructure.

4.2.3 Buildings

The buildings sector was another priority area for DMPs, with 3 of the 10 most supported recommendations coming from this sub-sector. There were 3 strongly supported recommendations, all with 66% support, with other recommendations significantly below the top 3. The first of these was to ensure that 'new builds to be built to be compatible with net zero'. This aggregation encompassed recommendations advocating that new builds were built to have high energy efficiency, green energy sources such as heat pumps and solar panels, and introducing regulation to ensure that developers would comply. The second of these recommendations was to increase access to information and advice on home improvements, with DMPs suggesting a range of policies such as an independent advice service to help people make the necessary changes to their homes. The final of the 3 well supported recommendations in this sub-sector was to introduce additional financial incentives to support homeowners undertaking retrofit work. Various mechanisms including loans, subsidies, and incentives were discussed to achieve this, as well as a recognition that there needs to be support in place for lower-income households.

4.2.4 Agriculture and land use

Creating new and protecting existing green space was the highest supported recommendation for agriculture and land use, with 47% support. These recommendations were often focused on improving local parks and increasing green space to deliver co-benefits. The policy with the second highest support score with 45% was to establish incentives and support for farmers to adopt sustainable practices. However, it should be noted that only 11 DMPs were able to have reasonably discussed farming-related issues on the basis that they were or had nearby rural communities or were national-level assemblies focusing on all policy areas. Some DMPs recommended that unused or abandoned land should be identified and be used for climate-related activities, such as local planting and growing projects.

4.2.5 Waste

In the waste sub-sector, there was a clear recognition that recycling facilities were difficult to understand and were not widely available for all waste. The clear favourite recommendation, supported by 48% of DMPs aimed to address this challenge and suggested more waste streams, clearer information, and ensuring everyone could access recycling options, for example people living in blocks of flats. There was also a recurring focus across the DMPs for a circular economy approach, with many suggesting local repair hubs and reuse centres. Innovative local approaches such as repair cafes and workshops were suggested within this aggregation to reduce waste and encourage re-use. The need for more education and awareness also re-emerged in this context, with some DMPs

recommending a public education programme specifically dedicated to recycling and waste reduction.

4.2.6 Aviation

Aviation was a sub-sector which had limited discussion across the 30 DMPs, hence only 3 aggregated recommendations. This could be explained by 28 of the DMPs being specifically focused on their local areas and local solutions to climate change, as opposed to national-level climate policies. The national-level assemblies of Scotland and Climate Assembly UK did both make recommendations relating aviation, as well as a locally focused assembly, the Leeds Citizen's Jury. This can be explained by the fact that whilst the Leeds Jury was focused on local solutions to climate, the process and subsequent discussions were bottom-up and citizen-led (Wells et al., 2021), and a topical issue at the time was the expansion of the local Leeds Bradford Airport. This led citizens on to recommending stopping this expansion and suggesting introducing a frequent flyer levy more generally.

Of the 3 processes which could have made recommendations relating to aviation, all 3 recommended introducing a frequent flyer levy, receiving a 100% support score. In addition, 2 of the 3 supported introducing a carbon tax on flights and investing in sustainable aviation fuels and technologies. However, the level of support for these policies should not be overstated given that only 3 processes were judged to reasonably be able to make recommendations on aviation emissions.

4.2.7 Electrical supply

The most supported policy in this sub-sector was for local renewable energy plans. Recommendations centred on utilising local resources and selecting energy sources which were suitable to the local geography. Many recommendations used the phrases 'strategy' and 'vision' when discussing renewable energy plans. There was also support for community energy schemes. The limited number of aggregated recommendations in this sub-sector could be explained by the fact that some of the processes tended to make recommendations and focus specifically on local energy issues, rather than consider national-level energy policy. For example, the Furness and Copeland People's Panel were the only processes to make a recommendation on nuclear power, given the context of nuclear power in West Cumbria.

4.3 Comparative analysis of DMP recommendations and polling data

After establishing the preferred policy options and priority areas for DMPs on UK climate policy, the analysis then added in the polling data identified from the media and literature searches. This comparative analysis identified where DMPs and polls agree and disagree on climate policy. The analysis developed a narrative summary (Appendix D) explaining where the similarities and

differences can be identified, which is visually represented in figure 8. Across the sources of polling data, there was 124 separate pieces of polling data used for analysis across the CCC sectors, 44 on cross-cutting enablers, 23 on surface transport, 23 on buildings, 23 on aviation, 7 on waste, and 4 on agriculture and land use.

Figure 8- Comparative analysis between DMPs and polling data, highlighting areas of agreement and uncertainty

Cross Cutting Enablers	**Surface Transport**	**Buildings**	**Agriculture and Land Use**	**Waste**	**Aviation**	**Electrical Supply**
Increasing information to citizens to help them make better choices.	Make public transport cheaper.	Government subsidies for home energy decarbonisation.	Increasing green space, planting more trees, and restoring natural ecosystems.	Introduce measures to reduce waste.	Introduce a frequent flyer levy.	Move towards and invest in renewable energy sources.
Design a tax system which ensures environmental costs are reflected in price.	Offer subsidies for purchasing electric vehicles.	Introduce regulations to improve the energy efficiency of homes and buildings.		Ensure recycling facilities are widely available and easy to understand.	Introduce restrictions on flying, for example bans and caps.	
Encourage low carbon sustainable diets.	Promote and improve active travel options.	Increase access to information and advice for homeowners on retrofitting.				
Greater citizen involvement in policymaking and scrutiny.	Make public transport more accessible and joined-up.					
Climate crisis to be central to all planning and policy decisions.	Invest in charging infrastructure for electric vehicles.					
Greater transparency of climate targets and performance of the public and private sector.	Invest in decarbonising public transport.					
Introduce restrictive policies such as bans and limits to reduce meat and dairy consumption.	Introduce measures which increase the cost of private car use.					

Key:

Green- both DMPs and polls support.

Yellow- some support from DMPs and polls.

Pale Orange- DMPs support but polls don't discuss.

Red-. Polls do not support and DMPs do not report or cover. If a policy is not recommended by a DMP, this may indicate that the issue was not covered, or that the issue was considered but did not gain the support of participants.

**Poll support subjective based on analysis.*

**DMPs support threshold set at support score of 50%.*

4.3.1 Information and education

The climate assemblies studied in this process showed overwhelming support for ensuring more education and communication on climate change to help people make better choices and change their behaviours to reduce emissions. This sentiment is reflected in the polls, with support for encouraging behaviour change across some sectors including electric vehicles, low carbon heating, and recycling. There was also support for policies to give more information not only to individual citizens, but to the 'consumer'. This involved introducing policies to ensure that that products and services which harm the environment are more visible to allow people to make a choice, for example through new labelling systems or extra charges. There is consistently high support in the polls for ensuring that environmental costs are reflected in the price of products and services, this is also recommended by some DMPs. There is a clear agreement across DMPs and polls that there should be more information made available to citizens to be supported in making the individual changes necessary to reach net zero.

4.3.2 Diet

There is some support across DMPs for encouraging citizens to eat a lower carbon, sustainable diet. Recommendations tend to focus on increasing local food options, information campaigns on the benefits of a low carbon diet and making sustainable food options more accessible and affordable. However, an issue not supported or addressed by most DMPs is the possibility of introducing limits, price increases, or even bans on red meat and dairy consumption. Polling data addresses these policies more directly and shows that restrictive policies on meat and dairy receive consistently low support.

4.3.3 Electric vehicles

DMP recommendations on electric vehicles are predominantly focused on improving the charging infrastructure for electric vehicles. This also includes introducing incentives for using an electric vehicle, for example reduced parking fees. However, the polling data used in this research does not explore these policies as much. Of the polling data available on electric vehicles, there is support for introducing subsidies to help people purchase them. There is some evidence of support of this policy

in the assemblies, suggesting policies such as grants and subsidies, however this features significantly less than the need for improved charging infrastructure.

4.3.4 Car reduction

Polling data suggests that there is low support for mechanisms which increase the cost of using a private vehicle, for example increasing fuel duty tax or congestion zone charges. Whilst there are some recommendations across DMPs for introducing measures which increase the cost of using a car, these do not receive high support across all DMPs. For example, the aggregated recommendation 'disincentivise car use by increasing cost' only receives 30% support.

The top recommendation made by DMPs in this area, and the second highest confidence score of all recommendations, was to promote and improve cycling and walking infrastructure. This was also further conveyed by some DMPs supporting the policy to prioritise pedestrians in urban spaces over private vehicles. Of the polling data used in this study, there is extremely limited polling data available on the issue of active travel. There was also strong focus in the climate assemblies on improving public transport, specifically making it more accessible, joined-up, affordable, as well as working towards a decarbonised public transport system. The polls also show support for introducing mechanisms which make the use of public transport cheaper.

4.3.5 Buildings and homes

Introducing subsidies for homeowners to undergo retrofit work had strong support across DMPs and the polls. In addition, DMPs were also in strong support for increasing access to information on home energy and decarbonisation for homeowners. There was also strong support across both DMPs and polls for introducing new regulations to improve the energy efficiency of buildings and homes. There were some variations in this, with DMPs strongly advocating for regulation to ensure that new builds are built to net zero standards, whilst the polls supported regulations on energy efficiency standards to force homes to reach a specified level of energy efficiency.

4.3.6 Green space and environment

Based on the data used in this research, polling on climate tends to have limited focus on green space and the environment. However, this was a key focus for DMPs who supported increasing green space and planting more trees, which of the limited data available, was also supported in the polls. Another issue which received some support in the climate assemblies were better utilising unused land for climate-related activities, particularly those that were community-led, for example the creation of allotments.

4.3.7 Waste

The desire for increased information and awareness was prevalent again for DMPs on the issue of recycling and waste. The most supported recommendation, which had the 9th highest support score of all recommendations, was to ensure that recycling facilities were easier to understand, and more recycling streams were available. This sentiment was echoed in another recommendation which centred on an education and awareness programme specifically focused on recycling. The DMPs also emphasised the importance of reusing and the circular economy, suggesting the introduction of 'repair cafes'. Polling data in this area is more focused on regulatory mechanisms, and policies such as the banning of single use plastics and introducing tougher regulation on packaging received support, which also received some support in the assemblies.

4.3.8 Aviation

DMPs, generally, do not address the issue of aviation, this could be explained by their local focus. Only 3 of the 30 assemblies deliberated on aviation. 2 of these were the national level CAUK and the Scottish Assembly, and the other being the Leeds Jury which recommended stopping the planned airport expansion. There is some evidence of support for introducing a frequent flyer levy and of the 3 DMPs which discussed aviation, introducing a frequent flyer levy was a well-supported policy. Despite this, there are policies which receive extremely low support in the polls, which DMPs do not discuss in their recommendations. These are restrictive policies, such as caps to the number of flights a person can make or preventing flying for leisure entirely.

4.3.9 Electrical supply

The polls show that there is consistently high support for investing in, and moving towards, renewable energy. There is discussion of renewable energy by most DMPs, however this is not as widely addressed as other sectors such as surface transport and buildings. Whilst polling data focuses on national-level energy policies, most DMPs at the local level tend to focus on local energy opportunities and challenges, given that their process question is usually locally framed.

5. Discussion

As highlighted by and throughout this research, there has been much experimentation with DMPs across key policy challenges, particularly on the issue of climate change. This research has studied the outputs of UK climate DMPs in detail, to understand what areas of action and policies DMPs support in relation to climate policy. This analysis, and a comparison with polling data, reveals key insights into how the deliberative process may impact other elements of the deliberative system, such as wider public opinion. Therefore, this section firstly offers insights into what the findings of the DMP analysis tells us about public attitudes to climate policy, and the effectiveness of the DMP as a tool for climate governance. The limitations of DMPs and their recommendations are also considered. The findings of the comparative analysis are discussed, outlining where DMPs and polling appear to reach consensus and where there are differences and uncertainties. Finally, the potential signals that DMPs could send to the wider deliberative system are proposed.

The chapter concludes that DMPs may not provide clear and easily implementable policies, thus more radical conceptions of DMPs as the ultimate decision-maker may be misguided. Yet, as a supplementary tool to current democratic institutions, they could play a significant role in setting policy direction and informing public debate, providing key insights for the wider public and politicians. Furthermore, the comparative analysis with polling data reveals a 'social mandate' for climate action, with well-supported policies across both polling and DMPs that decision-makers can pursue without fearing public backlash or polarisation. It also identifies areas where there is less clear consensus, which the wider public and political actors may need to attend to.

5.1 DMP strengths and insights into public preferences on climate policy

The DMP analysis firstly highlights the desire for increased education and communication on climate, with this recommendation receiving the most support across the processes. This sentiment has already been observed across national-level deliberative processes on climate (CAUK, 2020; UKRI, 2023), as well as panels on home energy decarbonisation and the advertisement of high carbon products and services (Climate Citizens, 2022b; 2024). It is well established that increased education and communication on climate change needs to be put in place to help people make the changes necessary to reduce their carbon footprint (CCC, 2023), with the DMP processes validating this claim. It also shows that the participants involved in the DMPs felt that the opportunity to learn and engage with experts, and to 'transform' their opinions (Fishkin 1997; 2011) was a valuable experience that the wider public should have the opportunity to do, giving further legitimacy to the DMP as a governance tool.

The second learning from the analysis is that DMPs do attend to issues of social justice and adhere to the needs of wider society. Many of the recommendations focus on ensuring net zero is affordable and accessible for citizens, emphasising the need to give everyone the opportunity to contribute to reducing emissions. This is reflected in recommendations which seek to make public transport more accessible and affordable, and to offer subsidies for home energy decarbonisation, which often cite the need to consider vulnerable and lower-income groups. This reinforces the notion that by including diverse perspectives in the deliberative process and ensuring representation (Dryzek 2002; Neblo, 2015), the impacts of policy on all groups in society can be considered. Therefore, the recommendations suggest that DMPs do tend to take decisions in the best interests of wider society (Warren and Gastil, 2015), leading to well-designed and publicly acceptable policy.

DMPs also showed some support for increasing citizen involvement in decision-making and scrutiny for climate governance, with this aggregated recommendation gaining 50% support. This has already been observed in other deliberative processes (CAUK, 2020; UKRI, 2023), with citizens wanting further involvement in decisions. This further shows that participants value being involved in a DMP and develop further confidence in political decision-making. This may validate the role of the DMP and signal to the wider citizenry that this process is key for developing policy and building a dialogue with decision makers. This also may respond to criticisms of the DMPs suggesting that they fail to challenge the power structures of which they are situated within (Pateman, 2012), as citizens demand that they continue to further scrutinise and challenge decision makers, holding them accountable for their action or inaction on climate.

The analysis shows that DMPs can develop reasonable and relevant recommendations in relation to the UK context. They are designed to create the 'ideal speech situation' to ensure the DMP creates an environment for reasoned debate (Elstub, 2018), which can create effective policy recommendations (Curato et al., 2020). The aggregated recommendations derived in this research show citizens' ability to understand and engage with the challenges regarding the net zero transition in the UK context, and address priority areas. As outlined by the CCC (2023) in their reports to Parliament, there needs to be better information provided to citizens to help them make the necessary changes, a feeling supported by DMPs in their most supported recommendation. The report also outlines the importance of developing demand-side policies across sectors such as home energy use and transport, two sectors which had well-supported recommendations across most DMPs. DMPs appear to be effective at addressing demand-side issues, rather than focusing on technological fixes to the climate crisis, a criticism of the current UK pathway to net zero. This highlights DMPs ability to address issues which affect citizens and offer suggestions on what types of policies could be implemented in these areas (Bryant and Stone, 2020).

The solutions developed by DMPs could be described as obvious to anyone informed on climate change, with many of the policies proposed long advocated for by non-governmental organisations (NGOs), activists, and academics. However, this could be seen as a significant strength of the DMP, in that following learning and deliberation, they reach similar conclusions to experts in the climate and energy governance space. Climate policy has tended to be top-down and led by experts (Hajer et al., 2015; Willis, 2020), rather than using more bottom-up approaches and designing policies with citizens. This has resulted in a dismissal of the role of the citizen in designing effective policies which will affect their everyday lives. By DMPs proposing similar policies to experts, those policies could be placed on a stronger footing, knowing that they are compatible with the science as well as being feasible and supported by an informed public.

5.2 Limitations of DMPs and their recommendations

Despite the many positive outcomes of the upsurge in DMP processes on climate change in the UK, there has been some justified criticism of their limitations, which this research has also uncovered. Given that there are various methods of design and delivery of DMPs, as well as different facilitation bodies experimenting with different approaches, the reporting and outputs of DMPs significantly differ across processes. Wells et al. (2021) highlight the differences between top-down approaches to deliberation, which may provide more concrete and deliverable policy recommendations, and bottom-up approaches, which allow for a more citizen-led deliberative process.

This is reflected in the DMP's recommendations when brought together as a collective. Some DMPs, particularly those organised at the local level, tend to produce somewhat vague and generalised recommendations, eliciting a vision or preference as opposed to implementable and achievable policy options (Font and Smith, 2013; Ufel, 2021). Thus, it could be claimed that DMPs do not provide new information or novel approaches, rather they serve as an education process for people to learn about climate change, state their preferences, and set policy direction.

The issue of vague recommendations being made by DMPs could also be explained by the scope of the DMP and the question set. Many processes focus on what a local area can do to 'address the climate crisis' in its entirety. This is an extremely wide question, which encompasses a vast range of sectors from what we eat, to air quality, to governance, and to local industry. Asking a group of randomly selected citizens, to undertake a 'crash course' on the climate crisis in a small amount of time so as then, to establish policy recommendations to address climate change may be overly optimistic, given the external complications in delivering climate policies. This may support the findings made by Elstub et al. (2021), which concluded that some members involved in CAUK struggled to engage with the technical and complex aspects of developing policy on climate. This

therefore reflects the criticism that citizens should not deal with complex policy challenges such as climate change (Brennan, 2016), and thus should not be empowered as the ultimate decision maker (Lafont, 2019). DMPs may be better utilised by focusing on more specific areas of policy relating to climate to enhance their policy detail (Ainscough and Willis, 2024).

Adding to the 'obvious solutions' argument, DMPs may develop 'win-win' policy proposals in theory, which raises questions over why they haven't been implemented yet. The recommendations involve action from many different political actors and stakeholders who have differing identities, priorities, responsibilities, and views on climate, which may make recommendations difficult to implement. The recommendations also rarely touch on funding mechanisms for these goals or the potential trade-offs as a result of certain policies. Many of the recommendations, for example making public transport more affordable and accessible and/or offering financial support for retrofit, are heavily dependent on significant funding and infrastructure development. There are further questions to be asked, therefore, whether these policies would still be as strongly supported if investment in other areas of the economy were to be reduced to compensate for increased investment on climate action.

The recommendations also place significant emphasis and responsibility on local government, which themselves have limited financial or decision-making resources (Dodd et al., 2023; British Academy, 2024). Thus, whilst the local authority may agree with the sentiment of the recommendations made by the DMP, they are unable to achieve any of them without support from national government and buy-in from other political actors. This may create a 'messy politics' around climate DMPs (Lewis et al., 2023), in which citizens become disenfranchised when their recommendations are not taken further.

The 'obvious solutions' argument could also be interpreted as DMPs failing to address power structures. More radical conceptions of DMPs view them as a democratic tool able to propose solutions which can deliver the radical social and economic change necessary to meet climate targets. However, others have concluded that the recent upsurge of deliberative processes cooperates with and legitimises the current power structures which consistently fail to deliver climate action (Ufel, 2021). Deliberative democracy should hold authority accountable (Hammond, 2019), yet by offering the 'obvious solutions', DMPs may fail to put adequate pressure on decision makers to deliver radical change. They therefore produce 'domesticated' public opinion, which is controlled by the commissioning bodies political agenda. This may allow the current regime to continue as they are, using DMPs as a way to portray serious climate action and enhance perceived democratic legitimacy but without actually introducing any significant change (Pateman, 2012).

5.3 Comparison of DMPs and polls

The comparative analysis between the DMP recommendations and polling data highlight that there are many areas of consensus across the UK public on key areas of climate policy. These areas are increasing information for citizens to make changes, making public transport cheaper, subsidising retrofit work for homeowners, increasing and protecting green space, reducing waste, and moving towards renewable energy. Introducing policies in these areas would clearly have a significant impact on reaching the UK's climate targets (CCC, 2023), and strengthens the argument that there is appetite for delivering action on climate. It also highlights that there are key structural barriers which need to be overcome to help people make the appropriate changes to reduce emissions, particularly financial and informational. It shows that the preference transformation that occurs through the deliberative process, tends to consolidate and strengthen support for policies in the above areas.

The analysis also reveals there are no significant disagreements between DMPs and polls, but there are slight differences and uncertainties. The uncertainties are found on the most contentious issues, namely diet, car use, and flying. These issues are highly valued aspects of life, which determine a high quality of life, which also hold social and cultural value. The DMPs on these areas tend to suggest policies which 'nudge' citizens into reducing emissions from their food and car use, such as encouraging low carbon diets or car sharing schemes, for example. However, these recommendations are not highly supported, with recommendations on these issues receiving a support score of less than 50%. Most, if not all DMPs do not consider, or address in their recommendations, the prospect of introducing restrictive measures in these areas, suggesting that they do not support such policies. In contrast, these policies are directly addressed in the polls, and there is overwhelmingly low support for restrictive measures on diet, car use, and aviation. This shows that whilst DMPs do address contentious areas, they tend to avoid restrictive measures and aim to empower citizens and encourage behaviour change, rather than by forcing change.

The preference transformation towards the encouragement of behavioural and social changes observed in the DMPs (albeit with moderate levels of support), rather than concrete policy proposals to reduce emissions on contested areas may highlight a weakness of the DMP. Diet, car use, and flights are symbols of a high quality of life, and there are strong cultural and social outlooks on these areas, with citizens having fundamentally different positions on such polarising issues. For example, there are significantly different behaviours and outlooks between a vegan and a non-vegan, and deliberation may be unable to align these positions. The focus on reaching consensus as an output of the process, may result in contentious issues being left unexplored (Machin, 2023). This results in contentious issues, if addressed at all, having weaker recommendations rather than concrete policy proposals to reduce emissions, for example through the 'encouragement' of behaviour change. The

recommendations of DMPs don't tend to address or weight disagreement, and thus it could be argued that we don't gain insights into contentious issues from most DMPs. This finding highlights the need for continued public engagement on fragile net zero policies (Ipsos and CAST, 2022), to gain a better understanding of what drives support or disdain for policies in contentious areas.

It should also be noted that because a preference has seemingly been transformed by the deliberative process, this does not make it inherently 'better' than the previous position. DMPs may lead to consensus in certain areas, however the debate may also lead to further complexities in policy development, uncovering new areas of contestation. The differences between the DMP and polls suggest that the preference transformation that does occur, is that citizens tend to shift towards a 'green-left' position on climate policies. The development of policies which focus on increasing choice at the individual level and increasing investment in the net zero transition suggest this. This could be linked to the fact that almost half of the DMPs included in this analysis were commissioned by Labour controlled councils, suggesting a left-leaning bias, adding strength to the argument that DMPs may validate pre-existing political agendas (Pateman, 2012; Hammond, 2019).

5.4 Climate DMPs in the deliberative system

The systems turn observed in deliberative democracy has sparked debate over how different components of the democratic system interact and influence one another. The DMP is understood to act as a bridge across the public and empowered space, as well as sending signals to the wider public on key policy challenges (Lafont, 2019). The comparative analysis between the DMPs and polls reveals that there is broad agreement from the public on the key areas of action. This indicates that there is a 'social mandate' for climate action in certain areas (Howarth et al., 2020; Ainscough and Willis, 2022). This could allow politicians to support and advocate for the recommendations made by the DMPs, knowing they have been tried and tested by the public. Politicians can be confident that policy development along these lines will be well received by the public, working to reduce the disconnect between decision-maker and citizen on climate action (Willis, 2020b). This could also be useful for NGOs, as the fact that DMPs support a policy suggests the wider public may also support it. Politicians and NGOs could use these signals to focus on which policies to back strongly and advocate for, knowing they have the support of the public. This could show 'climate leadership' from politicians, working to reduce the distrust between citizens and government on climate.

Equally, however, the analysis reveals where there is less clear consensus and uncertainty between DMPs and polls. This is seen most noticeably on contentious issues, particularly diet, car use, and aviation. The indications from polling data are that there is low support for changes in these areas, however the DMP analysis reveals a more optimistic picture. Whilst neither advocate for restrictive

policies to reduce emissions in the above sectors, DMPs do indicate an openness to developing policies which support incremental behaviour change, through encouragement and incentivisation. This could send numerous signals to various political actors. Firstly, it indicates to politicians that restrictive policies in these areas are likely to cause polarisation and frustration across the electorate. It also shows that there is a willingness to be informed about and consider behaviour changes in certain areas, which decision makers should look to facilitate.

The uncertainty on contentious issues could also signal the need for increased debate and engagement. The fact that recommendations have been supported by DMPs on changes to diet and car use could signal to the public that changes need to be made in these sectors, thus educating citizens and informing them of the importance of developing demand-side policies. It also shows that some level of common ground can be found through discussion on contentious net zero debates, showing that policies can be introduced which will have an impact whilst not restricting choice. If the channels for DMPs to 'signal' to the public were there, the difficult issues could be debated further in the public sphere to work towards consensus. Therefore, it could be argued that the policies proposed across diet and car use in DMPs could be utilised in the public sphere. This could transfer the debate which has evidently taken place within DMPs to the wider public, encouraging discussions to develop policies which would be both publicly acceptable and reduce emissions in these sectors. Politicians and NGOs, therefore, could look to direct more attention to these areas, increasing public education and debate. This could facilitate a shift in the wider public's support for more policies addressing emissions on contentious issues, particularly on diet and reducing the use of private vehicles.

The findings of this research indicate the strengths and weakness of the DMP and its outputs. However, their utility in the democratic system is dependent on the role they are expected to fulfil within broader democratic culture. If it is argued that citizens should defer to the recommendations of a DMP as this reflects the 'will of the people', it may inflame polarisation, particularly on contested issue. This analysis has identified, through a comparative analysis between DMPs and polls, which issues are consensual, and which are more uncertain. If the outputs are interpreted as 'signals' indicating the direction of public opinion, they may be effectively utilised to encourage debate and leadership in areas of uncertainty. Politicians may decide to show leadership in areas of contestation despite inevitably frustrating some in society, whilst encouraging action and debate in the most challenging areas of climate policy.

6. Conclusion

This research began by highlighting the challenges facing the UK with regards to democracy and climate change and explored deliberative mini publics as a potential solution which could address these challenges. Firstly, the research identified what climate policies UK DMPs support as a collective. This analysis has revealed that there is strong support for increasing education and communication on the climate crisis, improving public transport, and working towards home energy decarbonisation. The comparative analysis with publicly available polling data identified where DMPs and polls converge on climate policy, with both supporting increasing information to citizens to encourage behaviour change, making public transport cheaper, subsidising home retrofit, increasing and protecting green space, introducing mechanisms to reduce waste, and transitioning towards renewables. This shows that there is broad support for action in these sectors, and decision-makers should feel they can pursue climate policies in these areas with the support of the public. There is a clear 'social mandate' for climate action, which DMPs have contributed to by providing detailed and informed public opinion, developing their own policies and courses of action.

However, the analysis also identified areas where there is clarity on low support for climate policies. The polling data indicates that there is low support for policies which reduce choice for the individual, particularly for diet, car use, and aviation. Whilst DMPs recommendations show some support for encouraging behaviour change in these areas, they fail to develop policy options which enforce behavioural change. This may indicate areas which need further discussion in the public sphere to better understand what policies or actions people would support to reduce emissions from these sectors. These are highly contested, social, and cultural issues which evoke strong feeling at both ends of the spectrum, which DMPs alone may be unable to resolve. There are signs of a move towards a 'green-left' within the DMP process, which may signal the direction citizens will move in if given the chance to participate in wider deliberative debates, thus gathering more support for climate action.

The research also identified the strengths of utilising the DMP in climate governance. Citizens recommended more education for the wider public, showing the value of climate education. DMPs were able to effectively address issues of equity in the transition, with many recommendations centring on making changes accessible and affordable for individuals. DMPs also showed the ability to challenge authority, through recommending citizens take a heightened role in policy development and scrutiny of progress. Whilst DMPs do point towards the 'obvious solutions' which many in the climate space have long advocated for, it highlights an ability to appreciate context and make reasonable and relevant recommendations, addressing pressing areas of concern for UK climate policy such as reducing emissions from buildings and transport. For decision-makers, the fact that

these policies have been developed, tried, and tested by citizens and experts, can give them confidence, working to break the stand-off between a concerned public and nervous politicians.

However, the analysis of the DMPs does identify some issues and weaknesses with DMPs, their implementation, and their outputs. Their wide-ranging scope on climate change as a whole can make their recommendations generalised and vague. By attempting to cover all elements of the climate crisis, they are unable to spend time focusing on the technical and complex challenges of policy design and delivery. Thus, when vague or generalised recommendations are handed over to already restricted local authorities, their recommendations can be difficult to interpret and implement. This finding highlights that DMPs may not be best utilised as policy designers, given their limited understanding and resources to develop detailed policy proposals. Whilst the 'obvious solutions' argument can be celebrated in one sense; they also identify weaknesses in the DMP. Their recommendations are often centred on significant funding and infrastructure development, which may be unachievable. Furthermore, they tend not to address funding or potential trade-offs as a result of their policy recommendations. Equally, the obvious solutions proposed by most DMPs, may not align with the radical societal change that is needed to rapidly reduce emissions to reach climate targets, thus legitimising current governance structures and institutions.

Therefore, this research concludes that DMPs have a key role to play in climate governance and the net zero transition in the UK. However, their utility is dependent on how the process and subsequent outputs are used and interpreted in the wider public sphere. They should not be viewed radically as decision-makers and replacing current democratic institutions and practices given their participatory and policy-based limitations. However, they are a governance tool which if effectively utilised, can set policy direction and identify policies which can work for citizens across society. They are able to identify areas of consensus and contention, which can help decision-makers take braver and bolder action on climate. This research has not focused on the channels through which DMPs can impact public debate and the deliberative system, however if the outputs of DMPs could be fed back to the wider public, they could stimulate debate and ensure that all citizens could engage with challenging policy areas, enhancing the deliberative quality of the political system. There are clear areas of consensus, but also areas of uncertainty and division between citizens, namely on diet, car use and aviation, which need to be further explored and debated in the wider political system.

Whilst most research on UK DMPs has thus far focused on individual processes, this research has developed a detailed picture of the most-supported policies across these processes. By comparing these policies with publicly available polling data, the differences in deliberated and non-deliberated public opinion have been identified. In this sense, DMPs may be able to play a 'signalling role'

(Lafont, 2019) in UK climate politics. If the recommendations of UK climate DMPs, as aggregated in this analysis, were to be publicised to the wider public, DMPs may be able to effectively signal and encourage debate within the wider public sphere, potentially enhancing the deliberative quality of the democratic system (Mansbridge et al., 2012; Neblo, 2015; Brown, 2018; Parkinson, 2018). DMPs, in the context of UK climate politics, may be able to influence the wider public and political actors, encouraging and fostering support for climate action.

Policymakers should now look to utilise DMPs more effectively in the context of UK climate politics. Firstly, there should be a shift towards processes being focused on more specific challenges relating to climate, for example transport or waste, rather than attempting to tackle climate change as one problem and producing idealised and difficult to implement recommendations. Finally, given that DMPs produce different opinion to that captured in polling data, the arguments and narratives formed within the DMPs should be more effectively communicated, allowing them to fulfil their theorised 'signalling' role. This would give the wider public the opportunity to deliberate on the issues themselves, contributing to a more deliberative political system.

7. Appendices

7.1 Table showing all 30 DMPs (in date order) included in analysis with location, commissioning body, topic/framing question used, facilitation company, dates held, and the number of participants who took part.

Location	Commissioner	Topic/Framing Question	Facilitation	Dates	Participants
Camden	London Borough of Camden	Climate Change: We are now facing a climate and ecological crisis. How can the council and the people of Camden help limit the impact of climate change while protecting and enhancing our natural environment? What do we need to do in our homes, neighbourhoods, council, and city?	Involve	July 2019	60
Oxford	Oxford City Council	The UK has legislation to reach 'net zero' by 2050. Should Oxford be more proactive and seek to achieve net zero sooner than 2050?	Ipsos MORI	Sep-Oct 2019	50
Leeds	Leeds Climate Change Commission	Climate Change: What should Leeds do about the emergency of climate change?	Shared Future CIC	Oct-Nov 2019	20
Brent	London Borough of Brent	Climate Change: How can we work together to limit climate change and its impact while protecting our environment, our health and our wellbeing? Consider the Council, businesses and organisations, and individuals.	Traverse	Nov 2019	50
Newham	London Borough of Newham	Climate Change: How can the Council and residents work together to reach the aspiration of being carbon zero by 2050 at the latest?	Mutual Gain	Jan-Feb 2020	40
Croydon	London Borough of Croydon	Climate Change: Identify long-term actions and goals to reduce the Council's carbon emissions.	The Campaign Company	Jan-Feb 2020	42
UK	UK Parliament (6 Select Committees)	Climate Change: How should the UK meet its target of net zero greenhouse gas emissions by 2050?	Involve	Jan-May 2020	108
Lancaster	Lancaster City Council	Climate Change: *What do we need to do in our homes, neighbourhoods, and district to respond to the emergency of climate change?*	Shared Future	Feb-Sep 2020	30

Kendal	Kendal Town Council	Climate Change: What Should Kendal do about Climate Change?	Shared Future	July-Oct 2020	20
Brighton and Hove	Brighton and Hove Council	Climate Change and Transport: How can we step up actions to reduce transport related emissions in the city?	Ipsos MORI	Sep-Nov 2020	50
Adur and worthing	Adur and Worthing Councils	Climate Change: How can we in Adur and Worthing collectively tackle climate change and support our places to thrive? What does this mean for the way we live and for our local environment?	Democratic Society	Sep-Dec 2020	43
Scotland	Scottish Government	Climate Change: How should Scotland change to tackle the climate emergency in an effective and fair way?	Involve	Nov 2020-March 2021	110
Warwick	Warwick District Council	Climate Change: What do we need to do in the Warwick District to help address climate change by 2030?	Shared Future	Dec 2020-Feb 2021	30
Thurrock	Institute for Public Policy Research Environmental Justice Commission	Climate Change: What practical steps should we take together in the South Wales Valleys to address the climate crisis and restore nature in a way that is fair for everyone?	Institute for Public Policy Research Environmental Justice Commission	Jan-Feb 2021	20
Aberdeenshire	Institute for Public Policy Research Environmental Justice Commission	Climate Change: What practical steps should we take together in the South Wales Valleys to address the climate crisis and restore nature in a way that is fair for everyone?	Institute for Public Policy Research Environmental Justice Commission	Feb-March 2021	23
North of Tyne	North of Tyne Combined Authority	Climate Change: What should we do in the region to address climate change its causes fairly, effectively, and quickly?	Shared Future	Feb-March 2021	50
Blaenau Gwent	Blaenau Gwent Climate Mitigation Steering Group	Climate Change: What should we do in Blaenau Gwent to tackle the climate crisis in a way that is fair and improves living standards for everyone?	Mutual Gain and Involve	March 2021	50
Jersey	Government of Jersey	Climate Change: How should we work together to become carbon neutral?	Involve and New Citizenship Project	March-May 2021	45
Lambeth	London Borough of Lambeth	Climate Change: We are facing a climate crisis. How can we work together in Lambeth to address climate	Traverse	May-July 2021	50

		change and its causes fairly, effectively, and quickly?			
Devon	Devon County Council	Climate Change: How should Devon meet the big challenges of climate change?	Involve	June-July 2021	70
Copeland	Copeland Borough Council	Climate Change: What action should we take in our homes, businesses, and local area to respond to climate change?	Shared Future	July-Sep 2021	30
Glasgow	Glasgow City Council	Climate Change: How can we work together in Glasgow to tackle the climate emergency by 2030?	Ipsos MORI	August 2021	55
Southwark	Southwark Council	Climate Change: What needs to change in Southwark to tackle the emergency of climate change fairly and effectively for people and nature?	Shared Future	Nov 2021-Feb 2022	25
Furness	Barrow Borough Council	Climate Change: What should happen in the Furness area to address the emergency of climate change?	Shared Future	Nov 2021-Feb 2022	25
Herefordshire	Herefordshire Council	Climate Change: How should Herefordshire meet the challenges of climate change?	Impact Consultancy	January 2022	48
Shipley	Shipley Town Council	Climate Change: How can we work together in Shipley to limit climate change and its impacts while protecting our environment and health?	Shared Future	Sep-Nov 2022	25
Blackburn with Darwen	Blackburn with Darwen Council	Climate Change: What do we need to do in our homes, in business and our local area to help tackle the climate change crisis?	Shared Future	Sep-Dec 2022	26
Wandsworth	London Borough of Wandsworth	Air Quality and Climate Change: How can we all tackle poor air quality across Wandsworth in a way that improves our health and addresses climate change?	Shared Future	Feb 2023	50
Barnet	Barnet Council	Climate Change and Biodiversity: What more can we do together to make Barnet more sustainable, now and in the future?	TPXIimpact	Feb-April 2023	40
Westminster	City of Westminster Council	Climate Change: How can we overcome the main barriers to Westminster becoming a net zero city by 2040 together? How do we	Involve	June-July 2023	50

		ensure this is delivered in the fairest way?			

7.2- Aggregated recommendations used in DMP analysis

Cross Cutting Enablers:

1. Public communications and education programme on climate.
2. Climate crisis to be central to all planning and policy decisions.
3. Greater citizen involvement in policymaking and scrutiny.
4. Introduce support for SMEs to reduce their carbon emissions.
5. Encourage low carbon sustainable diets.
6. Invest in skills and training for green jobs.
7. Invest in low carbon sectors.
8. Develop novel funding mechanisms to fund local low carbon initiatives.
9. Greater transparency of climate targets and performance of public and private sector.
10. Devolve decision-making power to local authorities.
11. Public sector to lead by examples by greening their own operations.
12. Support local community initiatives addressing the climate crisis.
13. Greater information available to consumers.
14. Use the tax system to ensure that environmental costs are reflected in the price.

Surface Transport:

1. Support schemes for purchasing EVs.
2. Invest in EV charging infrastructure.
3. Make public transport more accessible and joined-up.
4. Make public transport more affordable.
5. Invest in decarbonising public transport.
6. Nationalise public transport.
7. Promote and improve active travel.
8. Planning urban spaces to prioritise pedestrians and cyclists.
9. Disincentivise car use by increasing cost.
10. Promote car sharing schemes.
11. Introduce a park and ride scheme.
12. Promote car free zones and days.
13. Businesses to promote low carbon options for their employees.
14. Vulnerable and low-income groups to be supported in the transition to low carbon transport.
15. Introduce 20mph zones through community and central areas.
16. Stop selling the most polluting vehicles.
17. Develop a transport policy for a low carbon transport system.

Buildings:

1. New builds to be built to be compatible with net zero.
2. Introduce new options for homeowners to finance retrofit work.
3. Introduce additional financial support for homeowners to undertake retrofit work.
4. Increase access to information and advice for homeowners on retrofitting.
5. Introduce financial incentives for business to undergo building retrofit work.
6. Minimum energy efficiency requirement for the sale of home.

7. Increase minimum energy efficiency requirement for renting a home.
8. Improved council leadership and planning on building retrofit.
9. Pursue community energy heating schemes.
10. New revenue raising measures to fund retrofit.
11. Use the planning system to ensure no new building on flood plains.
12. Additional support for fuel poor households.
13. Developers to fund the retrofit of existing local buildings.

Agriculture and Land Use:

1. Create new and protect existing green space.
2. Plant new and protect existing trees and carbon stores.
3. Create more allotments to support local growing.
4. Establish incentives and support farmers to adopt sustainable practices.
5. Mandate more sustainable land use practices from landowners.
6. Mechanisms for enabling unused/abandoned land to be used for climate-related projects.
7. Support and protect the marine environment.
8. Consult with farmers to develop best practice for sustainable land use.
9. Invest in projects for restoring nature.
10. Introduce a carbon land tax.
11. Localisation of neighbourhoods and developments.

Waste:

1. Ensure recycling facilities are widely available and easy to understand.
2. Public information and awareness raising campaign to promote recycling.
3. Introduce local repair and recycling hubs.
4. Reduce or ban single use plastics.
5. Public sector to work towards zero waste.
6. Mechanisms to encourage shops to reduce food packaging.
7. Mechanisms to force shops to reduce food packaging.
8. Mechanisms to encourage shops to reduce food waste.
9. Mechanisms to force shops to reduce food waste.
10. Encourage builders to reuse and recycle materials in construction.

7.3- List of polling data sources used (in date order) in polling analysis, with the source, dates conducted/published, and link to the results.

Source	Date	Link
YouGov.	March 2019	https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/goqzu6agqw/PublicInterest_190307_GreenNewDeal.pdf
Opinium and Bright Blue	June 2020	https://brightblue.org.uk/wp-content/uploads/2020/10/Going-Greener-FINAL.pdf
Ipsos Mori Scotland	October 2020	Research into public attitudes to climate change policy and a green recovery (www.gov.scot)
YouGov.	September 2021	https://d3nkl3psvxxpe9.cloudfront.net/documents/YouGov_-_COP26_main_release.pdf
Ipsos Mori and CAST	2021	https://www.ipsos.com/sites/default/files/ct/news/documents/2021-11/net-zero-policies-ipsos-cep-october-2021.pdf
Ipsos Mori	February 2021	https://www.ipsos.com/en-uk/reaching-net-zero-awareness-and-attitudes
Ipsos Mori	July 2021	https://www.ipsos.com/sites/default/files/ct/news/documents/2021-08/environment-survey-august-2021-charts.pdf
Onward and JL Partners	August 2021	thin-ice-attitudes-to-net-zero-onward.pdf (ukonward.com)
OECD	March 2021-March 2022	https://www.oecd-ilibrary.org/docserver/3406f29a-en.pdf?expires=1711445703&id=id&accname=guest&checksum=B2F25745DBD1A33F3F6D31B0481EDEF6
CAST	2023	https://cast.ac.uk/cast-data-portal-climate-action-dashboard/
YouGov.	April 2023	https://d3nkl3psvxxpe9.cloudfront.net/documents/Internal_ClimateTracker_230412.pdf
Survation and Greenpeace	August-September 2023	https://www.greenpeace.org.uk/wp-content/uploads/2023/09/Environment-and-Climate-Polling-Report-September-2023.pdf
More in Common	December 2023	https://www.moreincommon.org.uk/media/vfrjyxga/europe-talks-flying-report-9th-april-2024.pdf

7.4- Narrative summary of comparative analysis between DMP and polling analysis across different areas of climate policy

	DMPs	Polling
Information and Education	- Significantly high support across DMPs for public education and communications programme, detailing why we need to act and how people can make changes. - There is some support across DMPs for increasing the information available to 'consumers' specifically, through ensuring the carbon footprint of products and services are shown as well as reflected in price, so individuals can make a choice.	- There is support in the polls for 'encouraging' behaviour change across different sectors including EVs, low carbon heating, recycling, and reducing flights. However, there is less support for measures which encourage eating less meat. - There is also relatively strong support for introducing measures to ensure that products and services which harm the environment are more visible so people can make a choice, this includes extra charges and new labelling systems.
Diet	- There is support across DMPs for the encouragement of more low carbon diets. - Recommendations focus on actions to increase local food options, information campaigns on the benefits of low carbon diets, and making low carbon food more accessible and affordable.	- Low support for restrictive measures for meat and dairy products such as limits, bans, or increased prices. - Some, still small, support for encouraging/promoting vegetarian/vegan food options and local food options.
Carbon/Environmental Taxes	- Some support across DMPs for designing a tax system which ensures environmental costs are reflected in price. - This involves a range of interventions suggested by DMPs including carbon taxes for high emitting businesses and/or tax incentives for low carbon products and services.	- Consistent high support in the polls for ensuring environmental costs are reflected in price and taxing companies who produce substantial emissions.
Electric Vehicles	- Recommendations predominately centres on investing and improving EV charging infrastructure. - Recommendations also highlight the need for incentives for switching to EVs including reduced parking fees.	-Limited polling data available which is specifically focused on EVs, but indications of support for subsidies to help people purchase EVs.

	- Some support for grants/subsidies/other interventions to help people buy EVs.	
Car Reduction	- DMPs are show some level of support for reducing private car use and suggest various ways of doing this. - DMPs highlight increasing cost, creating car free zones, and promoting car sharing clubs. - DMPs also show desire for prioritising pedestrians in urban planning, through pedestrianisation and improved cycleways and paths.	- Polling suggests there is limited/low support for measures which make the use of a private vehicle more expensive, for example through increasing fuel duty tax and introducing congestion zones. - There is somewhat low support for the banning of petrol and diesel cars.
Public and Active Transport	- Strong support across DMPs for improving active travel options. -Strong support across DMPs in making public transport more accessible, joined-up, and affordable. -Also, relatively strong support for decarbonising public transport, however less of a priority than improving public and active travel options.	- Limited polling on public transport options and even less for the role of active transport. - Of the limited polling data, there is evidence of support for making public transport cheaper.
Buildings and Homes	- Strong support for regulations to ensure new builds are built to net zero standards. - Strong support for introducing subsidies for people to make home improvements. - Strong support for increasing access to information on how people can make home improvements.	- Strong support for introducing subsidies for people to make home improvements. - Support for new regulations on energy efficiency standards i.e. homes must reach a certain standard.
Green Space and Environment	- Strong support across DMPs for increasing green space and planting more trees. - There is also support for utilising unused land for climate-related activities, in particular, community-led climate action.	- Polling on climate policies has limited focus on green space and the environment. - Of the limited polling data available, there is very high support for planting more trees and restoring natural ecosystems.
Recycling and Waste	- Strong support across DMPs for extending opportunities to recycling and ensuring they are easy to understand and accessible. Some support for education and awareness programme to support this.	- High support in the polls for various waste reduction policies, of the limited polling data available. - Policies supported in the polls include banning single use plastics and introducing

	- Support for a focus on 'reuse', through mechanisms such as repair cafes. - There was also support for reducing single use plastics and reducing food waste.	regulation to force more products to be recyclable and reduce the amount of packaging.
Aviation	- DMPs, generally, do not address the issue of aviation. Only 3 of the 30 assemblies deliberated on aviation. 2 of these were the national level CAUK and the Scottish Assembly, and the other being the Leeds Jury which recommended stopping the planned airport expansion. - Of the 3 DMPs which discussed aviation, introducing a frequent flyer levy was unanimously supported policy. 2 of the 3 DMPs supported introducing a carbon tax on flights and investing in sustainable aviation fuels.	- There is a significant amount of polling on the issue of aviation. - There is relatively strong support for introducing a frequent flyer levy. - There is extremely low support for restrictive aviation policies, such as preventing/capping flying, stopping the expansion of airports, and banning aviation adverts.
Electrical Supply	- There is discussion on renewable energy and electrical supply by most DMPs, however, this sector does not feature as much as others in the recommendations. - There are two emerging recommendations made and supported by DMPs on energy, the first of these is developing local plans for renewable energy. This is centred upon using local resources and geography to generate energy. - There is also some support across DMPs for community-owned energy generation.	- There is high support in the polls for investing in, and moving towards, renewable energy.

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