

# *Climate Assemblies and Deliberative Democracy – A Review*

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## Introduction

The ambition to achieve net-zero by 2050 requires decision making that incorporates the public from the outset to ensure the necessary behavioural and political changes required. One of these strategies is the use of deliberative democracy. Deliberative democracy takes numerous forms but in the case of climate change the most effective of its forms are climate assemblies. Deliberative democracy is a relatively new concept where policy issues are addressed through deliberation between communities and governments rather than government alone (Niemeyer, 2013). The use of deliberative democracy is considered to increase the legitimacy of policy decisions due to the collaborative nature of this type of democratic engagement (Thompson, 2008) and increase the power and agency within communities. Deliberative democracy is now being applied to mitigation and adaptation policy. A climate assembly brings together either a representative sample of the population or a self-selected group to learn about and discuss climate change (KNOCA, no date). During climate assemblies the members will hear from a range of experts presenting evidence for participants to discuss. After discussing the evidence members write up their conclusion in the form of recommendations which are then handed to decision-makers which informs policy making whilst also empowering communities, engaging different groups and informing local action (Climate Assembly UK, no date).

Climate assemblies are important tools in addressing climate change. If they are conducted to a high standard, they can increase community empowerment while building public legitimacy with respect to policy making (European Climate Foundation, 2021). Considering only 35% of the population put trust in the UK government (Lelii, 2022), non-conventional tools, such as climate assemblies, have the ability to restore trust in government. In the context of expanding practice of climate assemblies, critically examining emerging practice will inform and improve community engagement and climate policies.

This project plans to explore how communities in the North-East of Scotland can be involved in and drive the process of designing, creating, and delivering a just transition. A just transition is a set of principles that ensures economic and environmental transitions are just and equitable and redress previous inequalities (Climate Justice Alliance, 2023). This research will inform future climate assemblies initiatives by examining cases of climate assembly outcomes, engaging decision makers and community empowerment. The academic portion of the project intends to deliver a literature review with respect to implementing climate assembly outcomes, engaging decision makers with this type of democratic process and community empowerment. This review will be supported by a survey aimed at policy and decision makers on perspectives of climate assemblies and deliberative processes. The final step is to undertake a conference on how policymakers respond to climate assemblies and the community engagement agenda.

This literature review will provide a brief outline of deliberative democracy and how it relates to climate assemblies. It will then go on to explain the design of climate assemblies and how that relates to 14 case studies of climate assemblies which have been undertaken across the world. This will lead to a discussion on the quality of deliberation and how this deliberation can be most effective. Penultimately, this literature

review will discuss outcomes of climate assemblies with respect to the case studies. Finally, some recommendations will be made considering all the previous evidence from theory and a real-world context.

#### GLOSSARY

DELIBERATIVE DEMOCRACY	A means of addressing issues via deliberation occurring between members of the public and governmental bodies and institutions
DELIBERATION	Slow, thoughtful, considered discussion
CITIZEN ASSEMBLY	The bringing together of members of the public, either recruited voluntarily or demographically chosen, to partake in learning and deliberation in order to inform governmental (and wider public) opinion, decision making and policy
CLIMATE ASSEMBLY	A citizen assembly specifically to address climate-related issues
CASE STUDY	A specific case used to illustrate the topic studied
POLICY	A course of action taken or proposed by government or an organisation

## 1. Deliberative Democracy

Deliberative democratic processes take numerous forms, one of which is climate assemblies. 'Deliberative democracy' arose as a concept around the early 1990s and describes the action of addressing issues of public concern via reasoning and deliberative discussion between communities and governmental institutions (Niemeyer, 2013; Cohen, 2007). Deliberative democratic models seek to move away from expert-centred political approaches and instead, include citizens in the creation of public policy (Chambers, 2003). There are a number of policy areas where this approach has been employed; education, bio-medical ethics, energy policy and most notably within the context of this project, the environment (Chambers, 2003). Deliberation requires purposeful citizenry inclusion and Cohen (2007) highlights the important difference between 'talking' and 'reasoning'. It is the discussion and weighing of reasons which contribute to policy decision making, giving citizen panels such as climate assemblies their deliberative element rather than being fora for purely 'talking' through an issue. Thus, in order for climate assemblies to be deliberative, there is a 'reason-giving' and justification for the decisions and outcomes made by citizens during climate assemblies (Gutmann and Thompson, 2004; Thompson, 2008).

The outcomes of deliberative democracy go beyond just policy processes (Thompson, 2008). Supporters of deliberative democracy assert that the decisions it produces have increased legitimacy due to the involvement of citizens (Thompson, 2008). For public policy to be implemented, of course, it does not require to be perceived as being legitimate (Thompson, 2008), but without citizen approval it can become very challenging. Recently in Scotland a bottle deposit scheme, businesses were concerned about the cost associated with the scheme, which has significantly delayed the roll out of the scheme, showing the difficulty policy implementation can have without full support of the businesses and the public (BBC, 2023). However, by facilitating community agency, citizen assemblies promote a collective and common-good approach rather than an issue for 'distrusted governments' to solve (Niemeyer, 2013). The latter has arisen as a growing disconnect between citizens and political actors has broken down trust (Ryfe, 2005) and so deliberative

processes seek to bridge this gap. Citizen assemblies have been found to produce a long term 'civic mindedness' and a feeling of participation (Niemeyer, 2013; Thompson, 2008) thus increasing citizenry engagement. Deliberative democracy also seeks to overcome short-term thinking which is prevalent within modern-day democracies (Willis et al., 2021). Participants of assemblies are supposed to be allowed the time and space to listen, reflect and scrutinise elements of the discussion and therefore, are not rushed into decisions (Willis et al., 2021). Their slow paced, deliberative nature and their ability to enhance civic mindedness and feelings of collective identity are especially beneficial for long-term issues that affect future generations such as climate change.

There are some cognitive barriers to deliberative democracy. When it comes to complex issues, psychological studies have found that people tend to avoid involvement or responsibility in order to 'pass the buck' (Ryfe, 2005). They also tend to take cognitive shortcuts that can render decision making efficient but at the expense of reflection (Ryfe, 2005). Nonetheless, citizen assemblies require involvement and more diverse representation from those who may be less engaged and marginalised from contemporary policy and decision making. As, if citizen assemblies are only comprised of self-selected participants, they can become largely composed of the self-assured, predominantly white middle-class (Ryfe, 2005) threatening the legitimacy of their outcomes. Public policy changes as a result of citizen assemblies can only achieve legitimacy if the public believe that the views expressed have been representative of the population and that progress has been achieved (Ryfe, 2005).

Climate action requires the engagement of seemingly 'everyday citizens' (Pallett et al., 2019) as climate adaption and mitigation is a collective endeavour more so than is the case with other policy areas such as taxation or foreign policy. Public participation is beneficial to inform policy makers in their understanding of how the public use energy in their homes or their choice of transportation to facilitate low carbon transitions (Pallett et al., 2019). Public participation is also beneficial in climate policy to 'bring people on board' with climate action. Hence, the public can feel that the responsibility to participate in climate action is placed on them by policy makers. This can aid feelings of legitimacy amongst the wider public for climate policies that they feel were created and influenced by citizen centred policy making processes (Pallett et al., 2019; Wells et al., 2021). Research suggests that there is growing support for public opinion to guide climate policy making (Wells et al., 2021). This may be in part due to the moral element of climate action, whereby the public's interests and values become important in their willingness to comply which can often be divided along social, economic, cultural and political lines (Wells et al., 2021; Dietz and Stern, 2008). By involving the wider public in climate policy making, alternative viewpoints across these lines in policy making processes can be incorporated. Therefore, including citizens in policy decision making processes may help to overcome this resistance and produce more effective results subject to effective assembly design.

Deliberative processes can support social justice outcomes in just transitions. A just transition is a set of principles that ensures economic and environmental transitions are just and equitable and redress previous inequalities (Climate Justice Alliance, 2023). Deliberation involving a representative group can break down political polarisation and provides an opportunity for citizens to consider opposing or alternative viewpoints

or social circumstances. If not representative, climate assemblies threaten their perceived legitimacy as mentioned earlier. Deliberative processes empower citizens across a diverse range of backgrounds in order to ensure all demographics are considered in policy making (Wells et al., 2021). Deliberative democracy is not in and of itself egalitarian, inclusive or empowering (Silver, Scott and Kazepov, 2010). Participants are often selected based on levels of deprivation and marginalised groups can be overrepresented in order to ensure their voices are heard amongst others during deliberations (Wells et al., 2021). However, these voices are often overlooked when assembly members are self-selected. This is vital as barriers to public engagement with climate change can occur at social as well as individual levels (Lorenzoni et al., 2007). Research indicates that those with lower levels of personal income demonstrate lower levels of environmental engagement (Milfont et al., 2015; Theodori and Luloff, 2002). Other demographic factors contribute to a lack of environmental concern such as older age and those less educated and thus, climate change can often be seen as a 'sectarian' issue (Milfont et al., 2015). By deliberately incorporating a range of demographics, deliberation processes can seek to break down sectarianism in climate concern and ensure a more just transition.

As an example, in response to Typhoon Haiyan, informal deliberation occurred within low-income households most directly affected by the typhoon in the Philippines in order to discuss issues such as relocation, resources to aid with climate resilience and sustainability and required infrastructure (Willis et al., 2021). However, this contrasted with government level deliberative talks whereby only high-level stakeholders were invited to make decisions regarding urban poor communities and thus excluded affected communities from deliberations. The exclusion of rural communities in deliberative processes is a common concern amongst the public (Willis et al., 2021). Thus, deliberative processes only move towards social justice when they directly include those from marginalised communities. However, we note that participation from marginalised groups is not enough. Power imbalances and inequalities can be reinforced during deliberation if marginalised and affected groups feel they have to conform to more dominant, powerful voices and therefore, bringing these voices 'to the table' does not ensure a balanced debate (Silver, Scott and Kazepov, 2010). Marginalised and traditionally excluded groups 'need equal capacities to participate' in order to ensure their voices are not only heard, but are influential (Silver, Scott and Kazepov, 2010).

It's also important to ensure diversity and inclusion amongst experts selected to present at climate assemblies. A study conducted by a team of researchers across the University of Strathclyde, Natural Environment Research Council, and Glasgow Caledonian University found no climate assembly across the 23 they studied that had been held in the UK since 2019 reported on the demographics of the experts that presented at each of them and that none had equity, diversity and inclusion targets to support the inclusion of marginalised voices amongst their experts (Roberts et al., 2022).

## 2. The Design of Climate Assemblies

### 2.1 Climate Assembly Design

There are many ways in which climate assemblies can be designed and conducted. There are lessons and good practices to be learned from the many climate assemblies that have been undertaken globally. This analysis has considered 14 climate assemblies at different scales to understand how they are designed and the outcomes presented after the completion of the assembly (see Section 5 for full justification as to why these case studies were chosen). Table 1 breaks down each assembly and the important aspects of climate assembly design.

#### Commissioning Body and Agenda Setting

Climate assemblies are used to enable citizens to engage with climate policy, the direction of this policy and the application of policy. This has led to climate assemblies largely being commissioned by local and governments at different levels depending on their scales, as such, these are the forms mainly analysed here. Interestingly, the Scottish climate assembly was commissioned due to the introduction of the Climate Change Act 2019 which made it law for Scotland to undertake a climate assembly to help shape Scotland's climate policy (Andrews, et al., 2022). While it is most common for policymakers to commission climate assemblies, they can also be initiated by non-profit organisations, as was the case in the example of the Washington climate assembly (2021). It is important to consider how the agendas of and the question which is chosen for climate assemblies are formulated. A deliberative process was utilised in the initial development of the assembly question during Scotland's Climate Assembly (2021). The remit of a climate assembly can be framed in many ways and climate assembly design can influence that framing:

*“Topics chosen for consideration, the priority given to the different subjects, the people chosen to communicate the information, the location of the assembly, the amount of time given to the process, the methods employed for deliberation, the mechanisms by which recommendations are chosen and communicated, and the commitment given by policy makers to act on the recommendations that emerge” (Shaw, Wang and Latter, 2021).*

These design choices have an influence on how members interact and discuss climate change policy, and will have an effect on the way in which the members arrive at recommendations based on how the assembly was framed (Shaw, Wang and Latter, 2021). Within the design, climate assemblies can use what is known as top-down or bottom-up approaches when setting agendas. There are advantages and disadvantages with both types of approach. Top-down tends to be more narrowly directed by experts which lends itself to more practical policy recommendations. By contrast, a bottom-up approach allows for a wider scope and affords members of the assembly the opportunity to create their own vision (Cherry et al. 2021). In general, climate assemblies which were considered in Table 1 delivered a top-down approach where the commissioning body tended to set the agenda and select the experts. For example, in the French Citizens' assembly (2017), the Economic, Social and Environmental Council created the agenda. For a more bottom up approach, during the Washington Climate Assembly (2021) the agenda was discussed by the participants and voted on. It is

possible to use both a top-down and bottom-up approach like with the UK and Manchester climate assembly where it was mainly top-down, but the design of the assembly allowed for some underpinning principles to be developed by assembly members (Cherry et al. 2021).

## 2.2 Organisation

The Westminster Foundation for Democracy (WfD) provide a guide on the key principles for enacting deliberative democratic initiatives (Carson et al., 2021). One of the key principles for successful deliberative assembly is having a clear remit and focus for the assembly. This is to provide a structure for the deliberation and to set boundaries for discussion. Throughout the case studies there were clear remits presented to the participants. For example, in Ireland's Citizen Assembly (2018) the remit was established with the question, "*How the state can make Ireland a leader in tackling climate change*". For the Climate Assembly UK (2020) the question asked was, "*How should the UK meet its target of net zero greenhouse gas emissions by 2050?*". WA Climate Assembly asked members, "*How can Washington State equitably design and implement climate mitigation strategies while strengthening communities disproportionately impacted by climate change across the state?*". This provided the assembly with an unambiguous goal of what was to be achieved by members. This theme was present throughout the case studies when the remit question was presented to the assemblies.

The next fundamental step to climate assembly design is ensuring transparency in the process so that external bodies can understand how the climate assembly came to be. This is to increase the legitimacy of the process and be open about the design of the assembly. The products produced before and after the assembly should be published in the public domain allowing the public to scrutinise the process. In the UK Climate Assembly (2020) report, a section highlighted the importance of transparency and outlined the relevant steps taken to ensure that all the information that was provided to the assembly was available. Transparency was a key aspect that came up when analysing the case studies and indicated that climate assemblies were taking adequate steps, as transparency should not be overlooked to ensure that the assembly is seen as legitimate. For example, the Devon Climate Assembly ran an extensive media campaign throughout the duration of the assembly in an aim to improve its transparency amongst the wider public (Sandover et al., 2021). The Washington Climate Assembly (2021) invited the public to follow the assembly in live time through a YouTube livestream.

The next principle involves diverse information in assembly processes. It is essential in a deliberative setting that information is provided from various sources and people with recognised expertise in the subject area chosen by the design team. There should be opportunities for members to ask questions and receive additional information that may be required. In every climate assembly which was analysed there was availability of expert sources on climate change and relevant information was given to the participants. The North of Tyne Climate Assembly (2021) had an extensive list of experts within different fields to effectively distribute information to the members and also to address any questions. This was consistent across the climate assemblies analysed. Currently, there is no transparency around or reporting for how experts are identified and selected (The Loop, 2022).

Other processes relevant to an internal organisation is the process of dialogue and deliberation. Deliberation theory suggests deliberative processes should not be centred around debating the issue amongst members but instead finding common ground among the members to facilitate discussions and to help formulate recommendations. The WfD suggest that voting should be avoided, if possible, to make sure that the conversation is kept open. However, this is not always the case – for example, in the Oxford Citizens' Assembly on Climate Change (2019) the members voted on scenarios in coming to their recommendations, which were nonetheless meaningful.

Finally, the ability of the assembly members to have a response to the challenge of climate change, is an essential feature of a successful climate assembly. During the French Citizens' Climate Assembly (2019/2020) members themselves demanded a different structure to what was proposed in the design. Members should not just be critically evaluating the policymaker's response to climate change, but they should be able to create their own recommendations based on the knowledge acquired. This was a characteristic of many of the climate assemblies where members created entirely new recommendations for review by government rather than just assessing current government policy. In the French Climate Assembly (2022), 149 proposals were made to the French government based entirely on what members felt would have the most effective interventions on tackling climate change. The one assembly which did not make any specific recommendations was the Global Climate Assembly (2022). This was a preliminary assembly tasked with simply investigating whether it was practical to hold an assembly incorporated members across the international context.

## 2.3 Recruitment

Typically, climate assemblies recruit approximately 100 members as an optimal number although the number of members varies across the case studies analysed (Newcastle University, 2022; Elstub et al., 2021; OECD, 2020). There are two options when recruiting for climate assemblies. Firstly, citizens can be recruited voluntarily, or they can be randomly and representatively selected (Ryfe, 2005). When citizens self-select as participants this often produces a "snowball effect" (Ryfe, 2005). Individuals interested in participating inform and, thus, bring in participants from their social networks and these individuals do likewise until the group is composed of 'snowballed' participants from similar social networks. Although this eases the recruitment process for organisers, it can result in a lack of representation and homogenisation (Ryfe, 2005). Self-selecting participants, as identified, tend to be civically and politically engaged already and tend to be white, university educated and middle-class (Ryfe, 2005). A lack of diversity within the participants of climate assemblies not only harms the legitimacy of the outcomes, as discussed, but it also harms the quality of the deliberation. In comparison, when a group is made up of strangers, particularly those with diverse ideas, participants are found to be more open to differing opinions, more likely to engage in deeper discussions and to learn from one another (Ryfe, 2005). However, groups from similar or the same social circles avoid open political conflict (Ryfe, 2005). Furthermore, when a primary purpose of deliberative democracy is to encourage civic engagement, if those participating are already civically engaged then self-selected climate assemblies become 'a consequence' rather than 'a catalyst of democratic socialisation' (Ryfe, 2005).



As a result of the limitations of self-selection listed above, random and representative sampling can often be favoured by assembly organisers (Ryfe, 2005). This approach is intended to ensure that, if the group is diverse enough, a wider range of viewpoints of the general population should be represented. If members are representatively selected, there will also be stronger 'public buy in' for the outcomes (Sandover et al., 2021). Policy changes that appear more radical will approach legitimacy only if they appear to stem from a demographically diverse and representative group (Sandover et al., 2021). However, the idea of citizen assemblies, even if selected randomly, being representative of the wider population can be considered flawed. Citizen assemblies comprise of small group of people in comparison to wider communities and therefore, cannot represent all the views that exist within them (Ryfe, 2005; Smith and Wales, 2000). Furthermore, the representativeness approach of recruitment can lead to 'false essentialisms' (Smith and Wales, 2000). Representatives of each criterion can be misleadingly assumed to represent all the views that would exist within it, e.g., this approach would suggest younger participants are expected to represent all young people within the wider, general population. Additionally, this approach assumes that most participants will make decisions based purely on their demographic and will think similarly to others with similar characteristics rather than acknowledging the possibility that participants may learn and alter their views based on the deliberation (Smith and Wales, 2000). The distinction must be made whether participants are tasked to deliberate or represent. Abramson (2000) when discussing legal juries highlights the subtle difference between jurors being encouraged to think outside their demographics whilst also encouraging the consideration of their own experiences and background and those of the community they represent. Additionally, the question arises as to which communities climate assemblies are attempting to represent. Should climate assemblies be comprised of a sample of the general population, or should greater allocation be given to those communities most directly affected by potential outcomes (Smith and Wales, 2000)?

There exists a paradox in two of the very core principles of deliberative democracy; the need for learning and the representativeness of the participants (Ryfe, 2005). Participation in climate assemblies requires learning in so much that participants are suitably prepared to discuss their views. Furthermore, it is a side effect of climate assemblies that participants will learn from one another. Once this learning has occurred, participants no longer represent the general public in that they are more knowledgeable than the communities they are assumed to represent (Ryfe, 2005). Thus, any outcomes from the deliberation cannot be said to be representative of the wider population as the views of members have 'evolved as a result of the process' (Duvic-Paoli, 2022). However, learning is a vital outcome of assemblies. In the UK, Devon Climate Assembly stakeholders sought to overcome this by running an extensive communications and media campaign in conjunction with the assembly (Sandover et al., 2021). Thus, aim was that the wider population of Devon could be educated on the developments of the assembly. Smith and Wales (2000) suggest climate assembly recruitment should strive for inclusivity rather than representativeness meaning a diverse group of participants is created to ensure certain groups are not 'systematically excluded' but that each participant is never expected to be a representative of any wider demographic group. Furthermore, measures must be taken to avoid inequalities due to factors such as race, ethnicity, culture and gender that might arise during the deliberation (Rojon et al., 2019).

Climate assembly organisers can achieve representative sampling by selecting potential participants using a civic lottery or ‘sortition’ process across a range of criteria, such as age, ethnicity, gender, social background, urban/rural dwelling, and education. Importantly, random and representative sampling ensures that those who are not particularly concerned about climate change are also involved in the deliberation process in order to ensure all viewpoints are represented. As such, potential attitudes towards climate change is in most instances considered when selecting participants. Random selection, however, is known to be an expensive and time-consuming means of recruitment for climate assemblies. Cash incentives are often used to encourage participation, particularly amongst those who are not particularly engaged. Climate Assembly UK (CAUK) gave 110 participants £150 per weekend session (of which there were 3) and covered expenses such as travel and childcare costs (Knoca, 2022). Similarly, organisers of Germany’s Citizens’ Assembly on Climate (Bügerat klima) gave 160 members €450 for their participation. Although this incentivises participation, monetary incentives which tend to accompany random recruitment processes are incredibly costly. When members of a climate assembly are self-selected, monetary incentives are not as necessary as participants are more likely already invested and wish to contribute to the deliberation making the recruitment process far cheaper. Furthermore, a survey indicated that the transparency of the recruitment process is vital to ensure legitimacy amongst the wider public (Sandover et al., 2021).

Both approaches have certain benefits whilst simultaneously having significant drawbacks. Randomised, representative selection is most commonly used when recruiting for members (KNOCA, 2022) but deliberative theorists tend to agree that the primary aim of deliberative participation should be equality regardless of whether participants are recruited voluntarily or via representative selection processes (Ryfe, 2005). They argue that should equality be achieved, so too will the legitimacy of the outcomes amongst the general population.

## 2.4 Scale

Climate assemblies can be conducted at any scale, from local level to global scale. Many of the assemblies analysed here were undertaken at the local level with participants within that local context. However, the example of the Global Citizens’ Assembly on the Climate and Ecological Crisis (Global Assembly Team, 2022) attempted to conduct a novel assembly at the global level. The goal is to eventually scale this process up to include 10 million global citizens by 2030, this is an ambitious target but will mean that the members of a global climate assembly will be more representative of the world population. The scaling of climate assemblies is difficult as climate action requires a truly ‘glocal’ response, meaning it is an issue that requires both large-scale, global action as well as local, regional responses (Duvic-Paoli, 2022). Various climate assemblies have dealt with this differently, some have kept outcomes in the confines of their individual nation whilst others have brought recommendations both upward to the supranational and downward to the local level (Duvic-Paoli, 2022).

## 2.5 Online vs. In-person

A significant part of the design process for climate assemblies is whether they are conducted in person or are entirely online. There is debate among scholars to which type of deliberation creates the most impact on reaching decisions and facilitating discussion between participants. There are many benefits and drawbacks to both online forms of deliberation and face to face settings. Some of the benefits to holding these types of deliberation online include recruitment, reducing barriers to entry and widening the pool of speakers and experts by removing geographical and logistical barriers. However, face to face deliberation has the benefit from of being less awkward and facilitating increased participant bonding (King and Wilson, 2022). At the core, communication is the fundamental mechanism for the success of climate assemblies whether the assembly is held in person or online. Overall, online formats capture the essential aspects of in-person assemblies. The benefit of easier access to participation to more geographically diverse populations, should be considered when deciding whether the assembly should be online, in person or a combination of both methods (Willis et al, 2021).

The majority of climate assemblies analysed were designed to take place online but some, like the UK climate assembly, were forced online due to the pandemic (UK government, 2020). Online sessions help reduce the costs of climate assemblies and make it easier for them to run over a longer period of time (Newcastle University, 2022). Considering that online assemblies have worked well and capture fundamental aspects of face-to-face deliberation process, hosting climate assemblies online do not have a significant impact on the outputs of a climate assembly (Newcastle University, 2022).

## 2.6 Timing

Due to the nature of climate assembly design, they can be time consuming processes. Given the sheer complexity of climate change policy, climate assemblies can be significantly time constrained caused primarily by budgets (Elstub et al. 2021). Meeting the needs of the climate assembly and ensuring that as much is covered, in potentially limited time, is a significant challenge to the design. Ideally, assemblies should run for as long as is feasibly possible (considering both budgetary constraints and participant availability) as research has found that the quality of deliberation gets better as climate assemblies progress and as participants become more knowledgeable on the issues being discussed (Newcastle University, 2022).

Within the climate assemblies which were analysed many took place over multiple weekends either consecutively or over a number of months. The Devon Climate Assembly (2021) was conducted in nine days over the space of two months, this was to allow for participants to reflect on what they had gained from the learning phase and to provide an opportunity to reflect on the group discussions. This was also to ensure climate change policy could be properly outlined by experts in the field while giving participants enough time to deliberate and make informed policy recommendations. On the other hand, the Irish Citizen Assembly (2017) took place over two non-consecutive weekends, but this was due to the climate change policy deliberation being part of a larger citizens' assembly encompassing a range of issues facing the Irish

government. The Climate Assembly UK was conducted across six weekends over the course of 5 months (between January and May, 2020) (Newcastle University, 2022).

Flexibility is important within the timing aspect of climate assembly design. In the French Citizens' Assembly, there was an original allocation of six sessions but due to pension reform strikes and the pandemic, sessions were delayed, while the assembly was extended to seven sessions to ensure there was adequate time for the participants to reach their final recommendations (Economic, Social and Environmental Council, 2020). The Irish Citizen Assembly (2017) is an example where flexibility was required as the commissioners believed that the topic was broad, so a second weekend was needed to ensure the topic was discussed. It is recommended that if climate assemblies are conducted via a mix of online and in-person sessions, this can lead to them lasting over a longer period of time (Newcastle University, 2022).

TABLE 1 – DESIGN BREAKDOWN OF CLIMATE ASSEMBLY CASE STUDIES

<b>Climate Assembly</b>	<b>Who Commissioned</b>	<b>Who sets agenda</b>	<b>Who are participants</b>	<b>How are they Organised</b>	<b>Online / In person</b>	<b>Timing</b>	<b>Scale</b>
<i>UK Climate Assembly (2020)</i>	Six select committees of the House of Commons	Assembly members – Group discussion and ballot	Civic lottery, representative sample of UK population (110 members)	Rigid structure – expert panel, discussion, voting on principles	In Person / Online	6 weekends (meant to be four, pandemic extended the CA)	National
<i>Scotland's Climate Assembly (2021)</i>	Scottish Parliament (The Climate Change Act 2019)	Stewarding group – 22 experts across a wide range of disciplines with members given the opportunity to determine the CA question	Largely representative of Scottish population (106 members)	Learning phas. Incorporated the children's parliament, discussion and deliberation phase, recommendation creation phase.	Online	7 weekends	National
<i>French Citizens' Climate Assembly (2019/2020)</i>	French Parliament	Economic, social and environmental council	Random selection that is representative of the French population	Expert panel, discussions in thematic groups. Proposal writing session, voting phase.	In Person / Online	Seven Sessions (Originally six sessions but pension reform strikes and pandemic delayed sessions)	National
<i>Ireland's Citizen Assembly (2018)</i>	Irish Parliament	Steering group – chairperson, secretariat and representative group of members elected by the wider assembly	Representative of Irish society (99 Members)	Initial meetings and discussions with an expert advisory panel.	In Person	2 weekends (Originally one weekend but topic is extremely broad)	National
<i>Washington Climate Assembly (2021)</i>	People's voice on Climate	Participant discussion and voting on CA principles	Representative of the state of Washington (77 participants)	Rigid structure – learning phase, deliberative phase, voting phase	Online	7 weeks	State Level
<i>Brighton and Hove (2020)</i>	Brighton and Hove City Council	City Council (focussed on transport)	Representative of demographics of Brighton and Hove (50 participants)	Initial session considered engaging members and ensuring they were comfortable. Followed by a learning phase. Deliberation phase a month after learning phase to allow for reflection. Final session discuss and agree headline recommendations	Online	5 sessions	Local
<i>Devon Climate Assembly (2021)</i>	Devon Climate Emergency	Involve (public participation charity)	Random representative sample for the population of Devon	Rigid structure – learning phase, discussion focussed on developing dialogue, deliberation phase, voting phase (if needed)	Online	9 days spread over 2 months	Local

TABLE 2 (CONTINUED) – DESIGN BREAKDOWN OF CLIMATE ASSEMBLY CASE STUDIES

<i>The North of Tyne Citizens' Assembly on Climate Change (2021)</i>	North of Tyne Combined Authority	Oversight panel - wide range of stakeholders and experts	Civic lottery, random stratified sampling. Representative of the population for the area (50 Participants)	Ice breaking session, learning phase, thematic prioritisation, thematic discussion, recommendation writing, finalise recommendations	Online	30 hours spread over one month	Local
<i>Global Citizens' Assembly on the Climate and Ecological Crisis (2022)</i>	Global Assembly	The knowledge and Wisdom Advisory Committee / Global Governance and Participation Advisory Committee	Global civic lottery – random sortition sample (100 Participants)	5 Blocks – understanding current situation, reviewing scenarios, pathways and principles, developing submissions to COP26, participation and observation at COP26, review commitments and future agenda setting	Online	20 sessions over 12 weeks (68 hours)	Global
<i>Oxford Citizens' Assembly on Climate Change (2019)</i>	Oxford City Council	Oxford City Council / Ipsos MORI	Demographically representative of the city (50 members)	Expert panel presentations, group discussion in the first weekend. Deliberation and voting phase in second weekend.	In Person	2 weekends	Local
<i>Manchester Community Assembly (2021)</i>	Manchester Climate Change Agency	The Envirolution Cooperative and external workshop providers	Representatives from across Manchester (108 members)	Expert workshops followed by group discussions to determine action plans and a mandate and then final workshops with local governmental and business representatives	In Person	5 sessions a week with different area groups for 7 weeks	Local
<i>The Citizen Assembly on Climate (German) (2021)</i>	Scientists for Future	BürgerBegehren Klimaschutz e.V.	Representative of the German Population (160 participants)	Expert panel with learning and discussion phase. Randomly assigned smaller working groups to specific topic. Development of recommendations with the aid of experts. Finally voting phase with recommendations that reached a majority passed to policymakers.	Online	12 sessions	National
<i>Lebanon Climate Assembly (2020)</i>	University College, London and Ebla Research Collective, Beirut independent of governmental institutions	Not disclosed	33 representatively selected members (reduced from 70 due to COVID-19 and social distancing measures)	Learning phase from experts followed by deliberation amongst smaller subgroups of 8-9 members led by an expert facilitator	In person / Online	5 sessions across 3 days	Local
<i>The Kendal Climate Change Citizens' Jury (2021)</i>	Kendal Council	Oversight Panel – local stakeholders	20 residents of Kendal	Learning and expert presentation phase, constant reflection throughout the sessions, discussion phase and initial creation of recommendations, finalisation of the recommendations. A voting round took place and indicate support for each recommendation	Online	10 sessions for total of 26 hours	Local

### 3. Quality/Effectiveness of Deliberation

Psychologists have repeatedly found that people take cognitive shortcuts to reach judgements; particularly political ones such as group affiliation, political ideologies, perceptions of political candidates etc. (Ryfe, 2005). These shortcuts often make decisions unconscious and reactionary (Ryfe, 2005). When people are working in group settings, these cognitive shortcuts occur (Ryfe, 2005). Individuals within group settings can reach conclusions via shortcuts such as following group consensus (Sunstein, 2002; Ryfe, 2005) or being influenced by strong group leaders (Nye and Simonetta, 1996; Ryfe, 2005). Furthermore, people tend to strive to avoid conflict and therefore, are more agreeable in group settings (Ryfe, 2005). Thus, deliberation, which requires well thought out, deliberate decision making goes against these social and cognitive norms by which people usually reach decisions. As a result, deliberation can often cause anxiety, hesitation and frustration amongst participants, particularly where issues are complex and already emotive and anxiety inducing and it is accepted that there are no easy conclusions (Ryfe, 2005). This is a disconcerting side-effect of deliberation as this difficulty experienced by participants can often lead to less enthusiasm regarding outcomes (Ryfe, 2005). However, researchers have found that some contexts tend to enhance subjects' deliberative thought. Firstly, if participants believe the outcomes of the deliberation are likely to be powerful and will be implemented this aids motivation and effort towards ensuring that decisions are carefully arrived (Taber et al., 2001; Ryfe, 2005). Secondly, accountability contributes to better deliberation. When group discussions are held publicly, people tend to think and process information objectively (Tetlock, 1985; Ryfe, 2005). Lastly, diverse groups tend to enhance deliberative conversation (Ryfe, 2005). All of this concludes that the context in which deliberation occurs is vital in determining the efficacy of climate assemblies. Furthermore, climate assemblies can ensure support for members experiencing 'climate grief'. Devon Climate Assembly (2021) provided spaces for quiet reflection and the ability for members to take time out and the UK Climate Assembly (2020) ensured an online 'safe space' once the assembly moved online.

## 4. Outcomes and Policy Influence of Climate Assemblies

### 4.1 Climate Assembly Themes

In Table 2, a breakdown is shown of the common themes which are presented from the recommendations of different climate assemblies. Using recommendations from previous assemblies to analyse themes which are produced can help the design process of future climate assemblies. There were common themes recurring which are discussed here relating to the outcomes of climate assemblies.

One of the consistent themes emerging from the assemblies analysed was the need for education and information about climate change and policy. Education is, of course, one of the key tools fundamental to tackling and mitigating the effects of climate change, as people, are made aware of the detrimental effects of climate change and different options to address it (Wals and Benavot, 2017). There is a desire within the

recommendations of climate assemblies to increase education to meet our climate goals. Given this, governments should be encouraged to distribute resources to better inform citizens of the magnitude of climate change related issues. Many of the climate assemblies were focussed on similar themes relating to climate policy issues in sectors such as energy, transportation, and agriculture, given that, these sectors have the some of the greatest effect on emissions (EPA, 2022). With this in mind a major part of the assembly process incorporates presentations and information sharing from climate experts whose experience encompasses these fields.

Another common theme amongst the climate assemblies analysed is advocacy for community engagement throughout the climate policy discourse, including recommending better communication to the wider public about both climate assemblies and the issues surrounding climate change. Community involvement within the context of climate change is vital and is seen to be one of the fundamental parts of resilience rather than being left as an issue for political elites alone to tackle (Bahadur, Ibrahim and Tanner, 2013). Assembly members in the case studies analysed often supported community involvement and were aware of its importance in tackling climate change. For example, members of the Devon Climate Assembly (2021) and Manchester Climate Assembly (2021) recommended that communities needed to be more involved in a greater capacity where climate change adaptation and mitigation were concerned.



TABLE 2 – OUTCOMES OF CLIMATE ASSEMBLY CASE STUDIES

	<b>Recommendations / Output</b>	<b>Themes</b>	<b>Response</b>
<i>UK Climate Assembly (2020)</i>	Over 50 Recommendations	Education and Information, Fairness, Freedom of Choice, Co-benefits, and Nature	Independent evaluation of the climate assembly (Elstob S. et al., 2021).
<i>Scotland Climate Assembly (2021)</i>	16 goals and 81 recommendations – Challenged government to commit to annual check-ins (Scottish Government, 2021).	Resources, building quality, retrofit homes, standards and regulation, public transport, travel emissions, carbon labelling, Education, Land Use, communities, circular economy, work and volunteering, business, 20-minute communities, taxation (Scottish Government, 2021)	Creation of a scorecard system with 10 key performance indicators to increase accountability. Comprehensive response from the government but unclear effect on policy. Some recommendations are under UK government remit which government has committed to contacting about these recommendations (Andrews et al., 2022)
<i>Ireland's Citizens' Assembly (2018)</i>	13 recommendations	Governance, Social Policy, Infrastructure, Energy (Community ownership), Nature, and Transportation	Special parliamentary committees were established to take forward the recommendations from the assembly. The committees helped create policy change in the form of Ireland's climate plan (Coleman et al. 2019).
<i>French Climate Assembly (2019/2020)</i>	149 proposals (Giraudet, 2022)	Transport and mobility, Consumption, Living and households, Labour and production, and the Food Sector	10% of recommendations were implemented without modifications, 37% were watered down or modified, and 53% were rejected. Government was graded a 3 out of 10 on their follow up of the recommendations by the assembly members (Courant, 2021)
<i>Washington Climate Assembly (2021)</i>	140 recommendations	Transportation, Buildings, Energy, Natural Solutions, Circular Economies, Social Policies, and Governance	Limited follow up and response from the Washington state council
<i>Brighton and Hove Climate Assembly (2020)</i>	10 recommendations	Focus of transportation	Physical barriers to the implementation of assembly recommendations, such as infrastructure. Non-physical barriers include those of addressing expectations and habits that citizens in Brighton and Hove experience (Carrol, et al. 2020)

TABLE 2 (CONTINUED)– OUTCOMES OF CLIMATE ASSEMBLY CASE STUDIES

<i>Devon Climate Assembly (2021)</i>	20 key principles and 14 resolutions	Transport and mobility, Buildings and Energy. Key messages produced included: Communications and Information, Community involvement and engagement, Urgency, Ambition, Governance, and Accountability (Scott, 2021)	The Devon Climate Emergency Partnership has developed responses to add the recommendations in the Devon Carbon Plan (Devon City Council, 2022).
<i>The North of Tyne Citizens' Assembly on Climate Change (2021)</i>	30 Recommendations	Housing, Transport, Energy System, and Nature	Recommendations were considered depending on if they could be implemented, require collaboration, or involve influencing government
<i>Global Citizens' Assembly on the Climate and Ecological Crisis (2022)</i>	No specific recommendations		Aim to invite ten million people to participate in a global climate assembly by 2030.
<i>Oxford Citizens' Assembly on Climate Change (2019)</i>	Voted on scenarios which were ranked from the most ambitious to less ambitious interventions	Transport, Waste Reduction, Buildings, Biodiversity, Renewable Energy. Key messages to council from members – More ambition, limited awareness to current policy before assembly, communication to citizens is needed, more education and information to wider public	Council announced Climate emergency budget, council would be net-zero by 2020, respond directly to the recommendations, hold net-zero oxford summit, establish a Zero Carbon Oxford Partnership, create new carbon budgets, provide support for individuals and communities to tackle the climate emergency
<i>Manchester Community Assembly (2021)</i>	Comprehensive Climate Mandate report and action plans for the five geographical areas	The emotional impact of climate change, transport, food and agriculture, fashion and retail, and buildings and energy	2022 refresh for the Manchester City Council's Climate Change Action Plan 2020-25 incorporated content of the Climate Mandate
<i>The Citizen Assembly on Climate (German) (2021)</i>	80 recommendations based on guiding principles on each topic stream	Energy, Mobility, Buildings and Heating, and Food and Agriculture	Limited policy impacts but increased the legitimacy of deliberative democracy and plans to undertake more climate assemblies in the future (Stack and Griessler, 2022).
<i>Lebanon Climate Assembly (2020)</i>	No specific recommendations	Energy justice priorities, the energy mix of future energy production in 2030, improvement of local energy efficiency	No link to governmental institutions
<i>The Kendal Climate Change Citizens' Jury (2021)</i>	24 recommendations	Food and Farming, housing and energy, promoting action and raising awareness, Transport, and other actions (general advice)	Councillors committed to implementing recommendations but were limited in the power and influence to implement certain recommendations

## 4.2 Policy/Government response to climate assemblies

The effect that climate assemblies can have on policy varies. In this analysis, there are wide range of successes, while also some examples of the limitations that assemblies face. There are multiple reasons as to why climate assemblies either effectively or fail to impact on policy change, from wider public support for climate policy after a climate assembly to limitations on local councils' power to implement recommendations presented to them. Table 2 gives an overview of the response to climate assemblies in each of the case studies from policy makers. This section will review the case studies previously mentioned and analyse those deemed to be a success in terms of influencing policy and wider impact.

Citizen assemblies are often thought to be of benefit because they can produce ambitious yet realistic outcomes (Duvic-Paoli, 2022). Both climate assemblies in the UK (Climate Assembly UK) and France (Citizen's Convention for Climate) produced far more ambitious policies than those proposed by politicians, yet a survey indicated that 62% of the French population found the policies to be 'realistic and effective' (Mellier and Wilson, 2020). Outcomes of climate assemblies can be used to inform policy making, directly or indirectly, or to influence policy by providing recommendations (Duvic-Paoli, 2022; Garry et al., 2021). For the most part, however, citizen assemblies' recommendations are advisory and thus, can often be quite loosely connected to policymaking (Rojon et al., 2019; Setälä, 2011). Furthermore, it is often difficult to prove the influence of climate assemblies on policy as it is often thought that policies may have been put in place regardless of participatory involvement (Wells et al., 2021).

There are several forms outcomes and recommendations for policy that emerge from climate assemblies can take (Duvic-Paoli, 2022):

TYPE OF POLICY	EXAMPLES
<b>Economic</b>	Public investment, tax incentive
<b>Regulatory</b>	Sanctions, prohibitions, regulations
<b>Educational</b>	Circulation or emphasis on education in order to influence individual behavioural change

### Policy interventions

Not only can climate assemblies be an important aspect of climate policy but commitment to outputs increases the legitimacy of climate assemblies, raising the prospects for using climate assemblies as a means of addressing the climate crisis (Stasiak, et al., 2021). The main goal of a climate assembly is for members of the general public to have influence on climate policy which directly affects them. It is therefore important to consider climate assemblies which have taken place to see whether they are achieving this goal.

There are many examples where climate assemblies have led to change in policy to benefit climate change mitigation and adaptation. A UK example can be found within the response from the Oxford city council after their climate assembly. The assembly led to the announcement of a climate emergency budget and engagement directly with the assembly to address the recommendations suggested. The council made it

clear that they would provide support for individuals and communities to tackle the climate emergency (Oxford City Council, 2019). The Irish Citizens' assembly demonstrated that citizen participation can lead to supporting policy development, where government will adopt recommendations and use those to inform future policy interventions. In the Irish case the recommendations were taken forward to produce Ireland's climate plan such as the phasing out of peat-fired and coal power, all car and van sales to be electric by 2030 and better energy efficiency building standards (Coleman et al. 2019; Darby et al., 2019). Manchester City Council responded to the Manchester Community Assembly's mandate by investing in the retrofitting of at least a third of the city's social housing to align with low carbon standards by 2032 and committed to ensuring 50% of all newbuild homes would be low or zero carbon by 2025 amongst other implementations (Manchester Climate Change Agency, 2021). Climate assemblies can be a useful tool for governments to understand the social aspects of climate action and inform the different options that have public support. It is fundamental to the success of climate assemblies to be acted upon so that they are not seen as 'tokenistic' processes (Wells, 2019). It is important for governments – whether local or national to consider the recommendations presented to them by the assembly.

Garry et al. (2021) found significant support from the public for decisions made by citizens' assemblies, even where they produced decisions with which they disagreed. Legitimacy is placed on climate assembly outcomes when they produce recommendations for policy, but tension can exist where assembly outcomes directly impact or contravene policy (Garry et al., 2021). A 2019 study found that the majority of politicians had a positive view of a climate assembly but that a fewer number wished for its outcomes to be binding (Niessen, 2019). Niessen (2019) cited a lack of trust in the capacity of lay citizens to formally contribute to policymaking. Girard (2021) identified that political actors can feel like assemblies undermine an elected governments' authority. However, climate assemblies earn their legitimacy by being far more diverse and representative than the make-up of many elected governments and also manage to ensure immunity from partisan breakdowns, electoral cycles and political partiality (Girard, 2021). However, if not seen as legitimate by governing bodies, perceived legitimacy in the wider public may be threatened (Girard, 2021).

Furthermore, beyond policy, climate assemblies can act as a tool to empower communities. This is vital as many of the effects of climate change are felt most acutely at the community level (Amref Health Africa UK, 2022). Manchester Community Assembly (2021) encouraged enhanced community involvement beyond the scope of the climate assembly through a range of campaigns such as community workshops, community fridges and hosting annual free family-friendly festivals (Lentils and Lather, 2022). Considering one of the recommendations of the assembly was to increase the uptake of localised and seasonal food, community actions such as this aims to increase learning, skills and knowledge to facilitate community growing and allotments.

### 4.3 Public engagement

Climate assemblies can have a positive impact on public engagement and support for policy interventions (Muradova, Walker and Colli, 2019) contingent on wider public participation and engagement (Kuntze and Fesenfeld, 2021). Climate assemblies also have an impact on participants' perceived expectations of how climate would influence their communities leading to an increase in support for action. Climate assemblies that engage diverse audiences supported by educational activities can break down the complexities of climate mitigation and adaptation (Myers, Ritter and Rockway, 2017).

The outcomes of citizen assemblies go beyond direct or indirect influence on policymaking. They increase civic participation, encourage deliberate thought and decision making, harness empathy to opposing views and prioritisation of common goals (Rojon et al., 2019). Climate assemblies are thought to rebalance top-down and bottom-up decision making both necessary for successful climate action (Wells et al., 2021). Citizens who participate in climate assemblies can act as 'key informants for the wider public, and act as a sort of 'civic immune system' and 'launder' complex environmental issues for the wider population (Niemeyer, 2020). Whilst there is debate on the direct impact of climate assemblies on policy, they have been found to increase public discourse on climate related issues (Duvic-Paoli, 2022).

There are suggestions that citizen assemblies can be used as a proxy to the public to increase public engagement and that climate assemblies are a source of trusted information in a discourse space than can be incredibly complex (Devaney, et al., 2020). Therefore, continuing to hold regular climate assemblies after an initial assembly is key to increasing public engagement with climate change. After the climate assembly in Oxford (2019) the council committed to holding a net-zero carbon Oxford summit to increase the engagement of the wider public and keep the conversation going about how important it was for citizens to be aware and educated on the subject of climate change. Not only do climate assemblies have some impact on climate policy, but they are a way to engage the general public to ensure that climate change policy is on the minds of the lay public.

### 4.4 Limitations

Whilst there are benefits to climate assemblies in terms of direct impact on climate policy as well as direct benefits, there are examples where recommendations are set aside or watered down by policymakers. Hence, it has been suggested that deliberative democracy has limited impact on the political process and policy making (Michels and Binnema, 2019). In the example of the French Climate Assembly (2021), only 10% of the recommendations were implemented without any revisions compared to 53% that were rejected (Courant, 2021). Considering that this was an assembly commissioned by the president of France, the direct impact on policy fell short of the aims of the climate assembly. As mentioned above, due to climate assemblies often being advisory and without mechanisms to bind the government to the recommendations

presented there is no guarantee that any recommendations formulated will actually have any influence on policy.

There are some climate assemblies which are undertaken by governments with the intention of producing tangible change to policy but in the end, there is limited influence. For example, the Washington Climate Assembly (2021) produced a document with 140 recommendations while there has been limited response to these from the Washington State Council. Recommendations were sent to the state legislature but there is little evidence to suggest that any of the recommendations from the climate assembly were implemented. This can also be seen within the policy impacts of the Citizen Assembly on Climate (2021) in Germany and Manchester Climate Assembly (2021) whereby local government was limited by wider system and national government changes. Here impact has been limited but, nonetheless, has increased the legitimacy of deliberative democracy and the government has planned to undertake more climate assemblies (Stack and Griessler, 2022). Lack of impact can be attributed to the early stages of using deliberative methods in climate policy but there are clear benefits of around increasing participation and representation in climate policy. Evidence suggests that deliberative processes can improve environmental outcomes by transitioning the climate issue away from 'distrusted governments' towards communities thus, giving the public agency and creating a government community partnership (Niemeyer, 2013).

#### 4.5 Policy Power

One of the other potential barriers to the implementation of climate assembly recommendations is the disjuncture of different levels of government and jurisdiction over different elements of climate policy. This can be seen in the Scottish example, due to some of the recommendations coming under the authority of UK government. The Scottish government response has been limited to engaging with the UK government regarding the recommendations (Andrews et al. 2022). This shows that even if governments have the political will to follow through, political power structures may hinder the climate assembly's progress. This was also the case for the locally based Kendal Climate Citizens' Jury (2021) where councillors were committed to implementing the recommendations but there were limitations on their power to implement certain policies. This highlights a need for more inter-governmental (and internal / departmental) policy integration as local and sub-national governments face challenges to implementing policy changes due to the local governments' remit and resource constraints (Measham, et al., 2011). This is a problem that more localised climate assemblies must address to ensure that they are aligned with or can influence levers of change across government jurisdictions. It may also influence the ambition of a local assembly in terms of the recommendations and the actions it can take within its sphere of influence, which can hamper how ambitious local climate assemblies can be with their recommendations. However, there are opportunities for recommendations to influence different levels of government on how to appropriately tackle climate change, with the legitimacy of outcomes that emerge of deliberative processes.

A hurdle to implementing climate assembly outcomes is the short-term political thinking of governments (Duvic-Paoli, 2022). Governments can demonstrate reluctance due to their limited time in office which means they tend to prioritise shorter-term goals (Lorenzoni et al., 2007). Hence, as Duvic-Paoli (2022) argue, our political and legal institutions are not built or equipped to deal with the governance of the future and instead are only conceived to deal with issues of the 'here and now'. Thus, they are ill-equipped to implement climate assembly outcomes that seek to protect future generations. However, climate assemblies are thought to improve this short-term thinking by encouraging careful and deliberate conversation and consideration about the future (Duvic-Paoli, 2022).

The impact of the outcomes of climate assemblies, when made clear to participants, alters the relationship between the assembly and political actors/the executive, e.g., climate assemblies where participants are told they are assuming an advisory role to policy makers have a different relationship than those who are told outcomes will directly impact policy (Duvic-Paoli, 2022). For example, President Macron promised that the outcomes of the Citizens' Convention for Climate in France would be delivered to parliament, 'sans filtre' (without filter) which resulted in a 'more tense and more complex relationship with the government' (Duvic-Paoli, 2022; pp. 254; Mellier and Wilson, 2020) The outcomes of the Citizens' Convention for Climate in France were translated into policy; however, they were done so with considerable caveats which seemed to discredit the 'without filter' promise (Duvic-Paoli, 2022). Furthermore, President Macron was accused of simply 'cherry-picking' the policies he most supported (Mellier and Wilson, 2020). 'Politics' seems to halt the implementation of climate assembly outcomes even if it has support of policy makers (Mellier and Wilson, 2020). Some of these political hurdles occur due to short-term thinking of political institutions and the lack of clear benefit to democratic parties and governments (Mellier and Wilson, 2020). Issues also emerge when climate assemblies are scaled up from local to more national arenas. There is a risk that when local climate assemblies are scaled up, they purely become discourse making tools rather than contributing to decision making (Niemeyer, 2020). However, if they have the capacity to frame wider public debate then this can still be beneficial despite the perceived lack of concrete outcomes. The most substantial risk when scaling up climate assemblies is their vulnerability to manipulation as they can be 'used as an agent for hegemonic power' and thus distorted as they scale up (Niemeyer, 2020).

Coupling is the term used for the linkage that exists between citizens and governance/elites during deliberative processes (Hendricks, 2016). The strength of this coupling is important and can alter the outcomes and quality of the deliberation. Loose coupling is thought to be best as if coupling is too tight then there can be assimilation between both political actors and citizens and thus, neither learns from the other (Hendricks, 2016). However, if decoupled, governmental sites of deliberation and citizen-based sites of deliberation will ignore one another (Hendricks, 2016).

One difficulty of implementing climate assembly policy recommendations could be the polycentricity of climate change. Any policy/law on climate change mitigation is bound to relate to a specific sector of economy with already existing set of regulations and policy, eg energy, agriculture or transport. Therefore, implementation

of climate assembly recommendations could require far-reaching reforms across multiple sectors of economy which is not always feasible as a response to the assembly.

## 5. Methodology

When conducting our literature review, we utilised a systematic review methodology to gather our key findings and evidence. We utilised academic tools such as Google Scholar, Primo, Google and the Sortition Foundation to conduct our literature search and used a variation of key words and criteria to limit our searches. Forms of deliberation utilise various terminologies and so we used a variety of search terms in order to capture most, if not all, terms used. These are listed below in the table below. We reviewed various forms of literature in order to produce a review a comprehensive range of literature related to our focus. This included academic literature, grey literature, government documents and news media. Searches were also conducted for citizens' assemblies and deliberation policies specific to climate related issues and wider examples of public deliberation.

Mini publics	Citizens' juries	Citizens' assemblies
Climate assemblies	Deliberative mini publics	Citizens' panel
Peoples' jury	Policy jury	Citizens' initiative review
Consensus conference	Citizens' convention	

We explored fourteen case studies in order to produce richer, in-depth and contextual examples both to test and contribute to findings of our review. The primary sources used to collate data on our 14 case studies are listed in the table below.

Case Study	Case	Key Source
1	UK Climate Assembly	Climate Assembly UK (2020); Elstub et al. (2021);
2	Scotland Climate Assembly	Scottish Government (2021a); Andrews et al. (2022); Scottish Government (2022)
3	Ireland's Citizens' Assembly	Coleman et al. (2019); The Citizens' Assembly (2018)
4	French Climate Assembly	Courant (2021); Louis-Gautan et al. (2022);
5	Washington Climate Assembly	Washington Climate Assembly (2021)
6	Brighton and Hove Climate Assembly	Carrol et al. (2020); Brighton and Hove City Council (2020)
7	Devon Climate Assembly	Devon City Council (2021); Scott (2021)
8	Global Citizens' Assembly on the Climate and Ecological Crisis	Global Assembly (2022)
9	The North of Tyne Citizens' Assembly on Climate Change	Shared Future (2021a);
10	Oxford Citizens' Assembly on Climate Change	Oxford City Council (2019);
11	Manchester Community Assembly (2021)	Walley (2021)
12	The German Citizen Assembly on Climate	Stack and Grissler (2022); Bürgerrat (2021)



13	Lebanon Climate Assembly	Shehabi and Al-Masri (2022)
14	The Kendal Climate Change Citizens' Jury	Shared Future (2021b)

### Case Study Justification

Climate assemblies are a relatively new platform for informing decisions on climate policy. However, local and national governments are increasing their use in the process of decision-making. One of the first citizen assemblies to incorporate climate policy came in the Irish Citizens' Assembly (European Climate Foundation, 2021). Therefore, it was important to use the Irish example when analysing climate assemblies. When considering which climate assemblies were to be analysed, characteristics of the assemblies were considered. These were characteristics such as scale, i.e., whether the assembly was at a local or national level of governance, assemblies such as the Scottish climate assembly being at a national scale in comparison to the Devon Climate Assembly which was conducted at a much more localised level. The Global Climate Assembly was an interesting example of a climate assembly which was implemented at the largest macro level possible. Another characteristic was the availability of breakdown of the design process, helping to give an understanding of how climate assemblies are designed, and good practice involved. When researching potential case studies, an interesting theme emerged regarding the body which set the agenda to be discussed, and whether that the agenda was set by the government commissioning the climate assembly or a not for profit charity with experience in running climate assemblies.

For a number of reasons we were only able to include one case study from less economically developed countries (LEDCs) in this report. Firstly, we found climate assemblies to be incredibly rare across these nations. Secondly, most climate assemblies that we did identify across these regions did not have published reports or information which we could access to study it in the same rigorous manner as the other case studies included in this report. On occasion, we found examples of civil action regarding the climate that occurred within LEDCs but these were informal and therefore, again, could not be analysed in the same way as the other case studies included in this report. Below is a list of the search engines/databases and search terms we utilised to conduct our search. We reviewed all the hits we received up and including the tenth search page.

#### SEARCH ENGINES/DATABASES

Primo	Google Scholar	Web of Science
Scopus	Clarivate	ProQuest Ebook Central
Ingenta Connect	JSTOR	

#### ALL SEARCH TERMS USED

Less economically developed "countries OR nations" "climate" assemblies assembly LEDC	Less economically developed "countries OR nation" "citizen" assemblies assembly LEDC
"Global south" "climate assemblies OR assembly"	Global south "citizen assemblies OR assembly"
"Deliberative democracy" AND "global south"	"Deliberative democracy" AND "less economically developed countries nations OR LEDC"
"Climate change" AND "deliberative democracy" AND "global south"	"Climate change" AND "deliberative democracy" AND "less economically developed countries OR nations OR LEDC"
"Developing" "nations OR countries" "climate" "assemblies OR assembly"	"Developing" "nations OR countries" "citizen" "assemblies OR assembly"

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