



Climate Governance Commission

Climate Policy Councils: Success Factors and Lessons Learned

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Executive Summary

National climate advisory bodies have been established at an increasing rate in developed and developing countries, with the goal to provide advice to governments, assess progress on mid-term and long-term climate targets, and evaluate transition to low-carbon or fossil-free societies. These advisory bodies vary in task, scope mandate, institutional design, and resources. Based on a review of the expanding scholarship on climate advisory councils, this report identifies four different types of climate advisory bodies and their impact on decarbonization policies:

Scientific climate policy councils consisting of designated independent scientific experts with the main task to review and monitor whether the climate measures taken at national level are sufficient to comply with national climate reduction goals.

Stakeholder climate policy forums consisting of societal non-state and sub-state actors and established with the main purpose to broaden the discussion to relevant actors outside the government, and provide opportunities for exchanges and contributions from civil society, citizens, the private sector, and municipalities.

Inter-ministerial climate policy forums with stakeholders, acting as stakeholder forums but with the addition of government officials from a wide range of ministries and agencies.

Internal advisory bodies that are part of a government agency. These are formal government bodies that engage or employ scientific experts to provide advice.

The report identifies five success factors that determine the impact and effectiveness of climate advisory councils:

1. It is important that climate advisory bodies have an appropriate and clear mandate. When designing a climate advisory body, the focus should be on ensuring institutional stability, independence from government, and relevant expertise across disciplines.
2. The climate advisory bodies should consist of independent scientific experts who serve for a given period that is not tied to the electoral cycle. Members should be appointed on the basis of their individual technical expertise in the disciplines central to climate change policy, including climate science, economics, social and behavioural sciences, and relevant sectoral expertise. The size of the advisory body is important and a scientific climate policy council should be of approximately 8-10 people including a chair, whereas a stakeholder forum may be larger.
3. The existence of climate legislation and a robust governance and institutional framework for regulating climate change, for instance a Climate Act, is decisive for the impact and effectiveness of a climate advisory body.
4. Resources and capacity are central for climate advisory bodies to fulfil their mandates. It is therefore important that the advisory body is allocated sufficient funding to fulfil its obligations, as well as support from a secretariat, which can be established specifically for this purpose or hosted by an existing institution.
5. There should be clearly established routines for the science-policy interface, i.e., the interaction between the climate advisory body and the government. This is likely to facilitate the uptake of advice and recommendations from the climate advisory body by the government. A factor that strongly influences the impact of the science advice given by the climate advisory body is whether the government is legally obliged to respond in some form.



1. Summary

There is a growing interest in establishing national climate policy councils to provide advice, and assess governmental policies, and to help further countries' work with the transition to low-carbon or fossil-free societies. As a sign of this growing interest, the International Climate Councils' Network (ICCN) of more than 40 national climate councils will be launched at COP26 in Glasgow under the auspices of the United Kingdom Climate Change Committee. These councils vary in task, mandate, institutional design, scope and resources. This report departs from evolving research on climate policy councils, which has developed a typology of climate advisory bodies (Evans, et al., 2021). In this report, we categorise the different types of climate advisory bodies as follows: 1) scientific climate policy councils; 2) stakeholder climate policy forums; 3) inter-ministerial climate policy forums with stakeholders; and, 4) in-house advisory bodies. The typology employed in this report is useful for pointing out differences between advisory bodies; however, in practice many climate advisory bodies have different functions, institutional set-ups, and mandates, and share to varying degrees characteristics of more than one type of advisory body.

This report does not claim to be exhaustive in description of all existing national climate advisory bodies; however, it includes advisory bodies from all parts of the world. While most are in Europe, there are also climate advisory bodies in Australia, Chile, Kenya and Mexico. We advance the four different types of advisory bodies described above. The most common form is the scientific climate policy councils, while the in-house advisory body is the least common type.

Scientific climate policy councils consist of (mainly) designated scientific experts, with a task to review and monitor whether the climate measures taken at national level are sufficient to comply with national climate mitigation goals. Policy advice is central, as a scientific climate council on a regular basis gives recommendations for how national climate policy can be improved and climate goals can be achieved. This report identifies nine countries with scientific climate policy councils. These vary in how they are organized and their mandates. For example, the pioneer – the UK's Climate Change Committee established in 2008 – is often seen as the blueprint for this type of independent body, with its members chosen for their scientific and technical expertise. Its main responsibility includes providing independent advice on the establishment and fulfilment of carbon budgets, and monitoring progress in reducing carbon emissions. In comparison, the Irish equivalent also has the task of evaluating and advising on Ireland's transition to a low-carbon, climate- and environmentally sustainable economy. However, the Irish Climate Change Advisory Council, which consists of both independent experts and representatives from different government authorities, has been criticised for this composition as it risks jeopardizing the Council's independence. In July 2021, the Climate Act was signed into law in Ireland and the role of the Climate Change Advisory Council was strengthened, enabling it to propose carbon budgets to the Minister.

Climate advisory bodies can also fulfil a function as a stakeholder forum. A **stakeholder climate policy forum**, unlike a scientific climate policy council, also includes societal non-state and sub-state actors, such as representatives of business or trade organisations, civil society organisations, local officials and even the general public. The main purpose of this type of forum is to broaden the discussion to relevant societal actors outside the government and to provide opportunities for exchange with and contributions from civil society, citizens, the private sector and municipalities. The Icelandic Climate Council is an independ-



ent body whose role is to hold government authorities accountable, to provide advice on how to achieve climate goals, and to improve policy and legislation related to climate adaptation and mitigation. The Council is also responsible for educating the wider public and disseminating information. The Council acts as a forum for stakeholder engagement, designed to allow a large number of voices to enter the national discussion on climate policy. Council members represent the business community, academia, municipalities, the labour movement and environmental organisations.

A similar type of advisory body is the **inter-ministerial climate policy forum with stakeholders**. These forums often act as stakeholder forums but with the addition of government officials from a wide range of ministries and agencies. An example of such a council is the Austrian National Climate Protection Committee (NKK). NKK's composition represents a wide range of representatives from politics, public administration, universities, business and civil society. It provides advice on fundamental issues related to Austrian climate policy in the light of the objectives of the Paris Agreement.

Finally, climate advisory bodies can also exist as an **internal advisory body** as part of a government agency. These are formal government bodies that engage or employ scientific experts to provide advice. In order for it to be classified as a climate advisory body, these must be a complement to well-established public environmental agencies and therefore they either have a narrow thematic focus, or are designed with a specific role in mind.

As can be seen from this diversity of climate advisory bodies, they are varied not only in institutional design, but also in their purpose, mandate, and governance functions (monitoring, providing recommendations, public outreach). Additionally, they also operate in different governance structures, as independent agencies or as units embedded in government agencies. Frequently, climate advisory bodies have been established as part of a framework of climate legislation, such as a climate law or Act as illustrated by for instance, Denmark, the UK and Sweden. The broader governance framework and institutional setting for regulating climate change in a country is crucial for whether the climate policy council will have an impact. Previous research has shown that the performance of climate policy councils depends on the legal framework and institutional setting within which they operate and are embedded. There is a need for a strong legislative framework for climate change, in which a climate policy council is a part, in order to have a greater impact.

Previous research identified the following success factors for effective climate councils: a mandate that ensures political independence and scientific integrity; members that are selected based on their expertise; a robust governance framework for climate change; adequate resources; and routines for the interaction between the climate advisory body and the government.



2. Introduction

There is a growing interest in establishing climate advisory bodies to advise and evaluate governmental policies and help further countries' work with transitioning into low-carbon societies or fossil free societies. 100 countries have goals to implement net zero emission commitments, and more than 40 countries have established different types of climate advisory bodies (Dudley, Jordan, & Lorenzoni, 2021). The establishment of such bodies reflects a broader realisation that scientific knowledge can contribute to decision-making in the environmental field by “expanding alternatives, clarifying choice and enabling decision makers to achieve desired outcomes” (McNie, 2007, p. 17). In contemporary debates on environmental policy, it is encouraged to produce and disseminate more useful knowledge for decision makers in the form of scientific advice (McNie, 2007). At the global level the establishment of the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) are some of the most prominent examples of efforts to compile and diffuse the advances of the science of climate change and biodiversity to policy-makers. The establishment of climate advisory bodies are seen “as a potential institutional climate governance and policy credibility. They are expected to bring a longer-term, technocratic and evidence-based perspective to climate policy, which, it is hoped, will make climate policy more informed, more predictable and less prone to political cycles” (Averchenkova, 2021, p. 2)

These advisory bodies are often part of broader climate change framework legislation “which define an agreed national long-term objective and establish the processes and institutions needed to meet it” (Averchenkova, 2021). Climate change requires constant and consistent political intervention for decades. The proliferation of climate laws in different countries represent an institutional framework that can help maintain long-term perspective on climate policy and political cohesion beyond electoral cycles. In addition, such legislation can enable the monitoring of progress towards adopted climate mitigation goals, secure public accountability, as well as to promote engagement with a wider range of stakeholders and citizens (Evans, et al., 2021).

This report analyses how different climate advisory bodies are organised, what impact they have and what lessons can be drawn if they might also be scaled up to **a global climate advisory body or bodies**. The IPCC bears the closest resemblance to a scientific climate policy council at the international level with its advisory role to the intergovernmental climate negotiations and Conference of Parties (COP). We have used the general definition of “advisory body” presented by Evans et al. (2021, p. 25): (1) the entity must be solicited by government for input on climate policy development, implementation and/or monitoring, especially when it pertains to policy evaluation; (2) consultation must be recurring and continuous (i.e., not one-off or isolated consultations); (3) if the entity is a private NGO/ research organisation, it should have a unique relationship with the government compared to its peers (i.e., consultation is not based on an open tender/grant process). We recognise numerous research institutes, think tanks and foundations are providing climate science advice (such as the Climate Governance Commission¹ of the Global Challenges Foundation or the Earth Commission²). The scope, sectoral and thematic focus vary to include environment, energy and sustainable development. However, in this report and while we depart from the Evans et al. typology (Evans, et al., 2021), we only include councils and advisory bodies focusing on climate mitigation and adaptation.

The report provides an overview of different kinds of national climate adviso-



ry bodies as well as a more in-depth analysis of four such bodies, which can be scaled up to regional and global levels. Rather than compiling an exhaustive list of climate advisory bodies in the world, this report focuses on the institutional features and mandate of a smaller set of climate advisory bodies. In addition to building on existing typologies of national climate change advisory bodies, we have drawn on information and data on advisory bodies' or governments' websites, as well as scholarly literature. In addition, the report is based on input from participation in a series of workshops on climate policy councils organised by the European Environmental Agency (EEA), Ecologic Institute and the Swedish Climate Policy Council, which has led to the establishment of an International Climate Councils Network (ICCN) of to be launched at COP26 in Glasgow.³ In some situations, the advisory bodies' websites have been translated with the help of Google Translate Web⁴ when the documents were in languages that the authors did not fully understand (e.g., Spanish, Icelandic, German). The information was cross-checked as much as possible, and the translation tools were considered useful and trustworthy for the purpose of this report.

The report is structured as follows. First, a brief background is presented of global climate change governance and the use of multilateral scientific advice for UN climate diplomacy. Secondly, the different types of councils are presented. Thirdly, the four case studies are presented. Fourthly, success factors identified in previous research are summarized. Finally, conclusions are drawn and connected to questions of how a climate change advisory body might be scaled up to a global level.



3. Global Climate Change Governance

The emerging global governance of climate change is central for understanding how and in which ways scientific knowledge and perspectives from stakeholders can strengthen policies and institutions set up to mitigate and adapt to climate change. The Paris Agreement is at the heart of this work and regulates how countries will achieve reduction of greenhouse gas emission goals. For more than 30 years, the IPCC has advanced scientific assessments on the causes, impacts and policy implications of climate change, and thereby has provided input to ongoing policy decisions at national and intergovernmental levels, which is illustrated by its recent sixth assessment report released in August (IPCC, 2021).

3.1 The Paris Agreement

The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 parties at COP21 in Paris on 12 December 2015 and entered into force on 4 November 2016. The agreement stipulates the long-term goal to keep global temperature rise during this century “well below” 2°C above pre-industrial levels and to make “continuing efforts” to further limit the temperature increase to 1.5°C. In addition, the agreement aims to strengthen countries’ ability to deal with the effects of climate change (Tubiana, 2017). To achieve these goals, the signatory countries must present action plans, so-called “nationally determined contributions” (NDCs). In NDCs, countries describe the measures they will take to reduce their greenhouse gas emissions. Countries also describe what measures they will take to build resilience to adapt to the effects of rising temperatures. The Paris Agreement is based on a five-year cycle in which countries undertake increasingly ambitious climate measures. In 2020, countries submitted their first NDCs, which are subject to the first review of the collective ambition level or “global stocktake” under the Paris Agreement until 2023.

Furthermore, the Paris Agreement calls on countries to formulate and present long-term low-carbon emission development strategies. This gives the NDCs a long-term horizon. However, unlike the NDCs, the long-term strategy for emission reductions is not mandatory.

Under the leadership of the High-Level Climate Champions nominated by the COP, the Marrakech Partnership for Global Climate Action supports implementation of the Paris Agreement by enabling collaboration between governments and the cities, regions, businesses and investors to take on voluntary emission reduction target in line with Paris climate goals (Bäckstrand, Kuyper, Linnér, & Lövbrand, 2017).

3.2 The UNFCCC and the IPCC

The United Nations Framework Convention on Climate Change (UNFCCC) is a treaty that serves as framework for its parties to negotiate actual agreements. Part of the UNFCCC is the Compliance Committee. This is made up of two branches: a facilitative branch, which aims to provide advice and assistance to Parties in order to promote compliance, and an enforcement branch, which has the responsibility to determine consequences for Parties not meeting their commitments.

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. Through its assessments,



the IPCC determines the state of knowledge about climate change. The reports identify where there is agreement in the scientific community on topics related to climate change, and where further research is needed. The assessment reports are an important input for the international negotiations to address climate change. For instance, the 6th report of the IPCC will be essential for the negotiations at COP26 in Glasgow (IPCC, 2021).

The IPCC plays an important role in informing the COP negotiations, including by focusing the debate on the urgency of the climate change threat (Tubiana, 2017). In addition, science has a crucial role in devising options for how to transform and lead to decarbonisation pathways. Science may also play an important role in the cycle of updating the NDCs: “these action plans will need to be based on the best available data and science” (Tubiana, 2017, p. 823). At the multilateral level, the IPCC functions as a multilateral climate advisory council. However, the decision-makers – i.e., the 195 state parties to the UNFCCC – can decide to contest the findings of the IPCC general or special reports. For instance, at COP24 in Poland 2018, the US, Saudi Arabia, Russia and Kuwait refused to welcome the IPCC special report on 1.5 degrees.

3.3 The EU Climate Change Science Advisory Board and Reform Proposals for a Global Environmental Agency

On 15 May 2021, members of the European Parliament’s Committee on the Environment, Public Health and Food Safety (ENVI Committee) approved a comprehensive climate change law which aims to achieve climate neutrality in the European Union (EU). The law will create the European Scientific Advisory Board on Climate Change, to provide the European Commission with independent scientific advice on the plan to become the first climate-neutral continent, in line with the recent climate legislation “Fit for 55 package” which includes climate and energy targets for 2030. The Advisory Board will assess policy coherence and monitor progress, review EU policies, and verify compliance with climate objectives. The experts will provide independent scientific advice, issue annual reports and consult with the European Environmental Agency (EEA) management board.

The Advisory Board is intended to consist of 15 experts who serve for four years, which may be renewed once. The members of the Advisory Board will be appointed by EU countries through the Management Board of the EEA. According to a Commission official, the Advisory Board will work “within the administrative structure of the European Environmental Agency (EEA), while acting independently” (Zubaşcu, 2021).

The EU’s advisory board on climate change is likely to, in contrast to IPCC, have a more decisive impact, as it will assess and monitor policy compliance with EU climate targets backed by binding supranational EU climate law. While there is punitive action and sanctions for non-compliant countries in the EU, the compliance mechanisms of the UNFCCC and the Paris Agreement are weak and sanction measures are non-existent. However, given the general global governance deficit and the institutional fragmentation of climate, sustainable development and environmental issues in the UN system, there have been calls for the establishment of a World Environmental Organization (WEO)⁵ over the past 40 years, to strengthen the status of climate and environmental issues within the UN system (Biermann & Bauer, 2005). Proposals have included an upgrade of the UN Environment Program (UNEP) to a specialised agency, or the integration of climate change under the mandate of the UN Security Council, related to debates on



“greening” the Security Council (Scott, 2015). Such proposals have been consistently blocked within intergovernmental negotiations on environmental and sustainable development in particular by countries in the Global South, within the G77 and by the US. The proposal for establishing new international or UN organisations with supranational elements modelled on, for example, the World Trade Organization was reiterated at the 2012 United Nations “Rio+ 20” Summit on sustainable development in Brazil. However, the G77 and the United States – out of concerns for loss of sovereignty and fear of “environmental colonialism” – blocked the proposal to establish and transfer political authority to a global agency for environmental protection. Historically, proposals for a WEO lack political feasibility, as major geo-political actors and major emitters have consistently blocked institutional reform to strengthen global climate and environmental governance. However, the rising national concerns for cascading and systematic risks and tipping points of run-away global climate change, as reported by the IPCC and the World Meteorological Organization (WMO), is likely to increase prospects for and renew debates on how the UN multilateral system can be strengthened and given more authority beyond intergovernmental negotiations in the UNFCCC, with a purely advisory role for the IPCC. The various experimentation with national climate policy councils and the establishment of an EU climate advisory council is creating a momentum that may diffuse to global levels through pressures by states.



4. Climate Advisory Bodies – Functions, Emergence and Diffusion

Advisory bodies which give governments advice on environmental issues have existed since at least the 1970; e.g., the German Advisory Council on the Environment was established in 1971 (Evans, et al., 2021). However, advisory bodies specifically focused on regulating climate change is a more recent phenomenon. While the Swiss Advisory Body on Climate Change was created in Switzerland in 1996, it was not until 2013 that the Council received its current form and mandate. Instead, the British CCC that was established in 2008 is often seen as a pioneer of its kind by playing a crucial role in raising UK's climate ambition (Averchenkova & Lazaro, 2020). The sample of the climate councils analysed more in depth in this report were all established after 2010.

While their mandate and institutional forms vary, scholarly research has defined several core functions of climate policy councils related to monitoring and assessment of progress, providing actionable recommendations for governments, enhancing accountability and building public support and legitimacy for climate policies (Averchenkova, 2021); (Dudley, Jordan, & Lorenzoni, 2021); (Elliot et al., 2021); (Evans, et al., 2021). These functions are to:

- provide evidence for and inform the government on how to achieve climate objectives, raise ambition, and stimulate long-term perspectives;
- assess and monitor progress toward implementation of climate goals, hold governments accountable;
- provide independent scientific advice and policy recommendations;
- facilitate public debate and convene stakeholders to increase public support for climate objectives.

These functions relate to three core roles of climate advisory councils (Evans, et al., 2021):

- **Watchdog** – independent assessment of governance progress and action or inaction, to facilitate accountability;
- **Advisor** – policy evaluation, policy recommendation, and information provision;
- **Convenors** – stakeholder outreach and public consultation.

There are many different types of councils, with varying institutional set up, tasks, scope, thematic focus and mandate. This report builds on the typology of climate policy councils presented by Evans et al. (2021), who divide councils into independent scientific councils, in-house scientific advisory bodies, stakeholder engagement platforms and stakeholder and inter-ministerial roundtables. We have chosen to divide the climate advisory bodies into: scientific climate policy councils, stakeholder climate policy forums, inter-ministerial climate policy forums with stakeholders, and in-house scientific advisory bodies. These categories illustrate the different governance functions between climate advisory bodies relating to monitoring progress toward implementation of climate goals, building public legitimacy and strengthening parliamentary oversight and accountability. At the same time, they should not be seen as mutually exclusive, several of the climate advisory bodies have overlapping governance functions across typologies.

The majority of climate policy councils covering core functions outlined above are found in Europe. In the Evans et al. study (Evans, et al., 2021), they find 57 en-



Environmental and climate advisory bodies working in 27 countries across Europe, of which 30 are classified as climate advisory bodies, working in 22 countries, with 27 classified as sustainable development advisory bodies. While there are fewer councils in the Global South, advisory bodies have been created in a number of countries, e.g., Chile, India, Kenya, Mexico and South Africa. In the Global South, however, it is primarily stakeholder climate policy forums or inter-ministerial climate policy forums with stakeholders that have been established, rather than independent scientific advisory bodies.



5. Different Types of Councils

5.1 Scientific Climate Policy Council

Scientific climate policy councils consist of scientific experts, who play an important role as advisors to governments on how to achieve mid-term and long-term climate change goals. They both make recurring recommendations on how the government should develop and strengthen its climate policy, and respond to specific questions that a government may have. In addition, the councils are independent watchdogs that monitor progress toward achieving national climate goals and international commitments (Evans, et al., 2021). Scientific climate policy councils exist in ten of the investigated countries (**see Table 1**). These advisory bodies are made up of independent scientists with expertise in a specific field, ranging from natural to social science as well as the interdisciplinary field of climate science. They vary in size from five to fifteen, with the German Klimaexpertenrat being the smallest and the Finnish the largest.

These councils have the task of advising the government on issues relating to climate policy, and assessing the achievement toward mid- and long-term climate goals by the governments on a regular basis. What is central to the council's status is the extent to which the government is legally responsible for responding to its recommendations. This is for example the case in the UK, Denmark and France (Evans, et al., 2021). While the UK government's only obligation is to respond, the government runs the risk of a judicial review if it does not follow the policy advice of the CCC more carefully (Averchenkova, Fankhauser, & Finnegan, 2018). In Denmark, a change in the law has been made, which entails a provision that the government must respond to the council's advice. The law also prescribes which issues are to be considered in the council's proposals. Another important aspect of these councils is their authority to independently initiate analyses that are not dictated by the council's mandate or by a government. All independent scientific climate councils analysed, except the Greek council, have this power.

Decisive for a council's ability to have an impact is not only how the council is constructed and what mandate it has been given, but also the resources available to it. This varies greatly between councils. The British CCC has a secretariat with 30 employees and the Danish Climate Council has a secretariat with over 20 employees. In contrast, the German Council is supported by a very small secretariat who perform only administrative tasks, and the Irish Council has only five employees.



Table 1 List of Scientific Climate Policy Councils				
Name of the Council	Country	Established	No. Members in the Council	Type of Members in the Council
Scientific Committee on Climate Change	Chile	2019		Scientists
The Danish Council on Climate Change	Denmark	2014	9	Scientists and analyst
The Finnish Climate Change Panel	Finland	2012	15	Scientists
The High Council on Climate of France	France	2019	13*	Scientists
Council of Experts on Climate Change	Germany	2020	5	Scientists
Scientific Platform for Climate Protection	Germany	2019	8	Scientists
Scientific Committee for Tackling Climate Change	Greece	2019	8	Mainly scientists
The Irish Climate Change Advisory Council	Ireland	2015	9*	Scientists, ex officio the Director-General of the EPA, the Executive Director of Sustainable Energy Ireland, the Director of Teagasc and the Director of the Economic and Social Research Institute
The Swedish Climate Policy Council	Sweden	2018	8	Scientists
Switzerland Advisory Body on Climate Change	Switzerland	1996	No info	No info
The United Kingdom's Committee on Climate Change	United Kingdom	2008	9	Scientists

*Current number of members, not legally fixed

5.2 Stakeholder Climate Policy Forum

Another kind of advisory body is the stakeholder climate policy forum. The “key objective of these [forums] is to open up the discussion to relevant actors outside of government and provide an opportunity for exchange and input from civil society, the private sector and local government” (Evans, et al., 2021, p. 29). These bodies can also function “as independent monitors, publishing reports on the policy impact and (projected) effectiveness of governmental plans and strategies” (Evans, et al., 2021, p. 29). They can, for example, include representatives of business or trade organisations, civil society organisations, local officials or even the general public.

Advisory bodies classified as stakeholder platforms exist in seven countries (see Table 2). These give recommendations and aim to facilitate dialogue and a common understanding of the threat of climate change and remedies. These bod-



ies contained different societal actors, such as environmental NGOs, businesses, trade unions, local governments, consumer organisations, as well as scientists.

These tend to be larger bodies, with the smallest being Iceland with 15 members, and the largest being Germany (Aktionsbündnis Klimaschutz), with approximately 200 members (not a fixed number). It varies between the councils whether there is a fixed group of stakeholders that are included or if this can be extended.

Some independent scientific climate councils as discussed in the previous section, such as the Swedish climate policy council, has a mandate to engage with citizens, disseminate information and convene stakeholder dialogue to build public support and legitimacy for climate policy.

In Sweden and Finland there are two temporary stakeholder forums: Fossil Free Sweden (Fossilfritt Sverige) and the Climate Policy Roundtable (Ilmasto-politiikan pyöreä pöytä), respectively. Fossil free Sweden is a multi-stakeholder platform initiated by the Swedish government in the run-up to the Paris Agreement. The goal is to, through collaboration with companies, industries, municipalities and regions, work to identify obstacles and opportunities to accelerate the development towards a fossil free welfare state. It gathers more than 500 stakeholders and has developed 22 roadmaps for fossil-free competitiveness for how different sectors can decarbonise (Fossilfritt Sverige, 2021). The purpose of the Finnish Climate Policy Round Table is to create a common understanding of how Finland can make a just transition to a carbon neutral society by 2035. The Climate Policy Round Table does not make decisions. Instead, it aims to support the preparation and implementation of climate policy at the national level (Climate Policy Round Table, 2021). Due to their temporary nature they have not been included in this report.

Within the UNFCCC, the Marrakech Partnership for Global Climate Action established by the Conference of Parties (COP) serves as a stakeholder mechanism to ramp up and mobilise voluntary climate commitments among sub-state and non-state actors such as business, investors, cities and civil society (Bäckstrand et al 2017).



Table 2 List of Stakeholder Climate Policy Forums

Name of the Council	Country	Established	No. Members in the Council	Type of Members in the Council
Climate Change Authority	Australia	2011	9	People with expertise from public policy, business, and Australia's Chief Scientist.
National Expert Council on Climate Change	Bulgaria	2014	No info	Representatives of all ministries, representatives of National Security, the Executive Environment Agency, the Bulgarian Academy of Sciences, the National Association of Municipalities and Non-Profit Legal Entities, directly concerned with climate change.
Commission for Inter-sectoral Coordination for Policies and Measures for Climate Change Mitigation and Adaptation	Croatia	2019	No info	Scientists, government officials and stakeholders (trade associations, NGOs, Chamber of Commerce and research institutions).
Czech Commission for Climate Action under the Research, Development and Innovation Council	Czechia	2019	No info	Scientists, representatives of industry and NGOs.
Aktionsbündnis Klimaschutz	Germany	2015	Ca 200 (no max)	Civil society organisations, business and trade associations, youth organisations, research institutions.
Icelandic Climate Council	Iceland	2018	15	Representatives of the business community, the university community, municipalities, consumer associations and environmental protection associations, as well as other representatives who are deemed necessary to be members of the Council at any given time. The Minister also appoints the chairman and vice-chairman of the Climate Council, as well as a representative of young people.
Council on Climate Change	Mexico	2012	No info	Representatives from the social, private and academic sectors, with recognised merits and experience in climate change.



5.3 Inter-Ministerial Climate Policy Forum with Stakeholders

An inter-ministerial climate policy forum with stakeholders is positioned within or connected to the government and, therefore, does not have a fully independent or autonomous advisory/monitoring function. Often, these bodies function as a stakeholder climate policy forum, but with the addition of governmental officials from a broad range of ministries and agencies.

There exist different types of inter-ministerial climate policy fora in eight countries ([see Table 3](#)). These are made up of a combination of ministers or representatives from national ministries and stakeholders and/or scientists. These fora tend to be larger than the independent scientific climate councils, but smaller than the typical stakeholder climate policy forum, which ranges from nine members in Kenya to over 50 in Spain. The inter-ministerial climate policy forum provides advice to the government's climate policy or coordinates climate policy. An example of such a forum is the Presidential Climate Commission (PCC) in South Africa. The PCC is a multi-stakeholder forum established by the President of the Republic of South Africa to advise on the country's climate change response and pathways to a low-carbon climate-resilient economy and society, and to provide recommendations on nationally determined contributions under the Paris Agreement. Much of the PCC's work has been on developing a practical guide on how to realise a just transition, as South Africa looks for ways to move away from its heavy reliance on coal and to reach net-zero targets by 2050 (The Presidential Climate Commission, 2021).



Table 3 List of Inter-Ministerial Climate Policy Forums with Stakeholders

Name of the Council	Country	Established	No. Members in the Council	Type of Members in the Council
Indian National Committee on Climate Change	India	No info	13	Scientists and authorities mainly from governmental organisations. Officials of the Ministry working at the relevant positions for planning and development of various aspects of hydrology and water resources.
The National Climate Protection Committee	Austria	2011	No info	It consists of one representative from each of the political parties represented in the National Council (Nationalrat); one high-ranking representative each from eight ministries including e.g. the Federal Ministry of Finance, the Austrian Federal Chancellery; The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology; the Federal Ministry of Education, Science and Research, the nine federal states; the Austrian Federal Economic Chamber; Chamber for Workers and Employees; the Austrian Trade Union Federation; Federation of Austrian Industries; the Austrian Consumer Information Association; the Austrian Association of Cities and Towns, as well as representatives of science and three representatives from Austrian environmental protection organisations.
National Climate Change Committee	Lithuania	2001	21	Representatives of ministries, municipal authorities, research and academia, industrial and non-governmental organisation.
Climate Action Board	Malta	2015	No info	Representing the Ministries responsible for: finance, economic development and competitiveness, energy, transport, environment, education, national security and civil protection, tourism, social policy, European affairs, land use and development planning policy, health, waste policy, agricultural policy, consumer affairs and regional policy.
Norwegian committee on Climate Change (Klimarådet)	Norway	2014	27*	Representatives of business and industry organisations, environmental organisations and researchers, county municipalities/municipalities, and local initiatives.
The National Climate Change Council of Kenya	Kenya	2016?	9	Cabinet secretaries for environment and climate change affairs, for the national treasury, economic planning and for energy; the chairperson of the council of governors, a representative of the private sector, a representative of civil society working on climate change, a representative of the marginalised community and a representative from academia.
National Council on Climate Change (El Consejo Nacional del Clima)	Spain	Originally in 1992 but the way it is set up now it was 2014	Ca 50	Representatives of ministries, of autonomous communities, local governments, business, ecologists, university, and unions.
Presidential Climate Commission	South Africa	2020	34	Representatives of the commission include government departments, state entities, the private sector, academics, civil society, traditional leadership, labour and research institutions. The South African Presidential Climate Commission, is a multi-stakeholder group established by President Ramaphosa to advise on the country's NDC update.

*Current number of members, not legally fixed



5.4 In-House Scientific Advisory Bodies

One category of advisory bodies that, according to Evans et al. (2021), should be considered as a climate advisory body is the in-house scientific advisory body. These councils fulfil several of the tasks of a climate advisory body, but they have a different institutional design and are part of governmental institutions and are within the public agency structure.

In-house scientific advisory bodies can be characterised as formal governmental bodies that engage or employ scientific experts to advise on climate, energy policy and environmental or sustainability issues. Importantly, these examples often exist in addition to and as a supplement to well-established environmental agencies. Therefore, they have either a narrower thematic focus or are designed with a specific role in mind, i.e., environmental, climate or spatial planning assessment. Their connection to governmental institutions does not need to compromise the validity of their results – but their work is nevertheless likely to be more “in the service of” its national government (Evans, et al., 2021).

While Evans et al. (2021) distinguish this type of advisory body from national authorities, because they have specifically defined tasks, it is difficult to draw a sharp line between these advisory bodies and national authorities equipped with the task of advising and performing evaluations and analysis. In addition to the fact that this category can be, in part, difficult to distinguish, its institutional design is less relevant for the purpose and prospect of scaling up climate policy advisory bodies to a global level. This type of body is strongly linked to a state or state-like formation, such as the EU. However, a brief description of some examples follows.

PBL Netherlands Environmental Assessment Agency is an autonomous research institute in the fields of the environment, nature and spatial planning. It is part of the Dutch Government organisation, the Ministry of Infrastructure and Water Management. It reports on the progress made with regard to the climate and energy transition on a national level, analysing the current and future impact of policy on greenhouse gas emission reduction and exploring various options for achieving the reduction targets. Evans et al. (2021) categorise PBL as an independent scientific advisory body. However, the PBL is an agency rather than a specific climate policy council, and although it performs several of the tasks of an independent scientific advisory body, it has not been included in this overview.

Another example is found in Poland, where the National Centre for Emissions Management (KOBiZE) is tasked with administering the EU emissions trading system in Poland, run a national database in which data is collected on emissions of greenhouse gases, and is responsible for carrying out annual inventories of greenhouse gas emissions. KOBiZE also provides expert support to the Ministry of the Environment and other interested governmental entities in the field of EU ETS, emissions of greenhouse gases or other substances, and some aspects of the UNFCCC. KOBiZE also has constant contact with local governments, business organisations and entities to provide information and clarifications in the field covered by the expertise of KOBiZE.



6. Comparing Different Types of Climate Councils

6.1 Independent Scientific Councils – UK and Ireland

In this section two scientific climate policy councils are compared - the Climate Change Committee in the United Kingdom and the Climate Change Advisory Council in Ireland. These councils share both similarities and differences in how they are set up. The comparison helps to clarify how choices in design of these councils impact their functioning and what impact these design choices have.

6.1.1 THE CLIMATE CHANGE COMMITTEE, UNITED KINGDOM

In 2008, the UK Parliament passed the Climate Change Act 2008, which commits the country to reducing its greenhouse gas emissions by 80 percent by 2050, compared to 1990 levels. This goal became more ambitious in 2019 when the UK became the first major economy to commit to a “net zero target.” The new target requires the UK to set all greenhouse gas emissions to zero by 2050. The law aims to enable the UK to become a low-carbon economy and empowers ministers to implement measures needed to achieve a range of greenhouse gas reduction targets.

The law means that the UK, the first country in the world to do so, set up legally binding carbon budgets that set emission reduction targets that the UK must comply with. This has been enabled through a series of five-year carbon budgets that limit the total amount of greenhouse gases that the UK can emit over a five-year period.

The law also included the establishment of an independent Climate Change Committee (CCC), to advise the UK Government on these goals and related policies. The purpose of the CCC is to advise the UK and delegated governments on emissions targets and to report to Parliament on progress in reducing greenhouse gas emissions and adapting to the effects of climate change (The Climate Change Committee, 2021).

Tasks and Mandate of the CCC

The CCC functions as a watchdog, as well as an advisor and convenor. It is responsible for providing independent advice on what goals are set and whether the UK meets the carbon dioxide budgets. It provides advice on both the UK’s long-term carbon targets and its five-year carbon budgets. At the end of each carbon budget, the CCC provides a detailed picture of policy outcomes during the budget period (Averchenkova, Fankhauser, & Finnegan, 2018). The CCC also has the task of collaborating with a wide range of organisations and individuals to share evidence and analysis (The Climate Change Committee, 2021).

The statutory obligations are to:

- Recommend to Parliament appropriate emission reduction targets. The Climate Change Act prescribes a statutory long-term target for 2050 and a series of five-year carbon budgets, which define the path to 2050. Both sets of targets are recommended by the CCC and set by Parliament.
- Advise the government on the risks and opportunities of climate change and evaluate its national adaptation program. This task is performed by the CCC’s Adaptation Subcommittee.



- Monitor and evaluate progress in reducing emissions and against climate resistance. The CCC prepares an annual progress report to parliament, to which the government has a statutory obligation to respond.

Although the CCC has no formal powers to change government policy, it relies on “the analytical power behind its advice and the political embarrassment that its assessments may cause. The government also risks a judicial review, caused by environmental pressure groups, if it does not fulfil its statutory obligations under the Climate Change Act” (Averchenkova, Fankhauser, & Finnegan, 2018). CCC’s analytical insights are combined with a dialogue with stakeholders and authorities to find out what is possible in practice (Averchenkova, Fankhauser, & Finnegan, 2018).

Members of the CCC

The Committee consists of nine members. These are elected for their technical expertise of different aspects of climate policy, including low-carbon technologies, climate resilience, economics, climate science, behaviour, business and the natural environment. Many of them are high-profile academics. The chair of the CCC is appointed by the Prime Minister for a term of five years and the Committee members are appointed by the responsible Secretary of State. The Committee is supported by a secretariat of 30 staff with expertise in all aspects of the climate change issue.

Reports and Advice

The CCC advises, upon request, the UK Government and the Delegated Governments of Northern Ireland, Scotland and Wales on specific climate policy issues. The CCC has, for example, provided advice on aviation emissions, renewable energy, climate impact from shale gas extraction, and interrupted climate policy. The CCC has published over 300 different reports, including progress reports, carbon budget reports, country-specific reports, risk assessments of climate change, etc. Averchenkova has found (2021) that legislators have made use of the evidence provided to them by the CCC and suggests that the Committee “has been an effective knowledge broker, providing information that has consistently been referenced by all political actors.” In the study of the British Parliament, it is shown how all parties have mentioned the CCC, however, it is primarily the opposition that refers to the CCC in debates in the British Parliament, in particular to raise climate policy ambition (Averchenkova, Fankhauser, & Finnegan, 2018).

Although politicians refer to the CCC in debates, and there is a generally positive attitude towards its advice, the extent to which the recommendations become law vary. For example, when the fourth carbon budget was to be adopted, recommendations to tighten the carbon budgets were ignored. While the Committee provides detailed policy recommendations, the government’s response is frequently non-committal (Averchenkova, Fankhauser, & Finnegan, 2018).

6.1.2 CLIMATE CHANGE ADVISORY COUNCIL, IRELAND

The Climate Action and Low Carbon Development (CALCD) Act 2015 is framework legislation that lays the foundation for Ireland’s transition to a low-carbon economy. This will be achieved through a combination of the following: a national greenhouse gas reduction plan, a national framework for adaptation, and specific sectoral adjustment plans. The law prescribes the approval of the government’s plans for climate change in order to drive the transition to a low-carbon, climate-resistant and environmentally sustainable economy. It also establishes the Climate Change Advisory Council (CCAC). The CCAC is an independent advisory



body tasked with evaluating and advising on Ireland's transition to a low-carbon, climate- and environmentally sustainable economy by 2050. The CCAC regularly publishes reports on Ireland's progress towards its national policy targets and greenhouse gas emissions targets.

In July 2021, the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law. This new legislation will create a legally binding path to zero emissions by 2050. The law also stipulates that the government must adopt carbon budgets that comply with the Paris Agreement and other international obligations. The first two five-year carbon budgets will correspond to a total reduction of 51% during the period to 2030, compared to a baseline for 2018. However, the five-year budgets are not legally binding. In addition, the Ministers will be responsible for achieving the legally binding targets for their own sectoral area, with each Minister reporting on his/her performance against sectoral targets and actions before an Oireachtas [the Irish Parliament] Committee each year.

The Role and Mandate of the Council

The CCAC functions as a watchdog and an advisor. The regulation of the CCAC explicitly states that an important task of the Council is to review the government's progress and the CCAC conducts annual and periodic reviews (Climate Action and Low Carbon Development Act, 2015: 12). According to the Climate Action and Low Carbon Development Act 2015, the Council must carry out the following:

- annual review of climate policy, regular review of plans plus ad hoc reviews or working documents, on its own initiative or at the request of the government;
- make statements on issues and topics that it wants to draw the attention of the government and key stakeholders.

The mandate of the CCAC was criticised in an evaluation for giving advice that is strongly linked to the achievement of the existing National Transitional Objectives and EU climate and energy targets "rather than prioritising the provision of advice aligned to climate science" (Tallon, Turner, & Thorgeirsson, 2020, p. 13). The evaluators are also critical of the fact that "there was no duty of reply by Government or explicit avenue for scrutiny of the Government's response to potential Council advice" (Tallon, Turner, & Thorgeirsson, 2020, pp. 13-14). With the newly adopted Act of 2021, the role of the CCAC will be strengthened, and it will be given the role of proposing carbon budgets that match Ireland's ambitions and international obligations.

Members of the Council

According to the CALCD Act 2015, the Council must have between nine and eleven members, one of which is chairman and a maximum of ten ordinary members. Four of the full members must be appointed ex officio, namely the Director-General of the EPA, the Executive Director of Sustainable Energy Ireland (SEAI), the Director of Teagasc and the Director of the Economic and Social Research Institute (ESRI). Thus, the CCAC consists of both scientists and representatives of national authorities that are central to Ireland's transition to a low-carbon economy, as well as a research institute. CCAC is thus not a pure research council, nor is it a council consisting of stakeholders. Instead, it is a combination of scientists and key government officials.

Reports and Advice

To date, the Council has produced four yearly reviews, as well as a number of other reports. The task of the Council is to develop an ongoing work program that



provides continuous input to and evaluation of national climate change initiatives. They have provided advice on the implications of the IPCC Special Report on Climate Change and Land in an Irish context, sent a letter to the Minister of Communication, Climate Action and Environment regarding the issue of Offshore Exploration for oil and gas, and produced a working paper summarising the existing evidence from academic research and international case studies, to assess the suitability of available options and mechanisms to achieve a transition to low-carbon transport in Ireland.

The Council's work shows that greenhouse gas emissions in Ireland have not been significantly reduced in line with temperature goals in the Paris Agreement. It has repeatedly emphasised the need for an effective climate policy and the necessity of a long-term and whole economy approach. Furthermore, the Council has argued for the need for a substantial and necessary increase in carbon taxation and has also played a role in helping to end government subsidies for peat and coal combustion. According to Tallon et al. (2020), the Council can also be given credit for stimulating the maturation of the sensitive debate on the role of agriculture and land use in Ireland's mitigation efforts. One criticism that Tallon et al. (2020, p. 3) highlight in the evaluation is that the Council's "legislative mandate falls considerably short of international best practice" and "that the Council may have been overly sensitive to the constraints imposed by that mandate, at the expense of a more ambitious advisory agenda and one which is appropriate to its status as an independent advisory body."

6.1.3 COMPARISON

Although both the UK and Ireland have adopted climate change framework legislation and established climate advisory bodies, there are some important differences in the design of the councils. CCC and UK legislation are often seen as "a good institutional model for independent climate advisory bodies" (Averchenkova, Fankhauser, & Finnegan, 2018, p. 24). According to Averchenkova et al., the "CCC has made a material difference to the way climate policy is conducted in terms of objectives (the statutory carbon targets), process (impact on parliamentary debate) and substance (e.g., influencing new laws on energy, infrastructure, housing and water)" (Averchenkova, Fankhauser, & Finnegan, 2018, p. 2). The CCC produces well-developed, robust and country-specific advice that the government can use. However, an important feature of how it works is that there is an obligation from the government to receive and respond to its assessments. This obligation to respond gives the CCC weight and creates favourable conditions for the CCC's advice and recommendations to be heard.

This can be contrasted with the Irish CCAC: "Despite the Council's substantial mandate to conduct annual progress reviews, there is no duty on Ministers, Government or Government Departments to respond and they have acted accordingly. Council records indicate that over fifty letters across the Council's term were issued by the Chairperson or Managing Administrator to Ministers and Departments [...]. All either received no response at all or at most generated a standard acknowledgement. There is no requirement on the Climate Minister, the Government, or indeed the Council itself, to lay the Council's Annual Reviews before the Houses of the Oireachtas, thereby dissociating its work from the processes of democratic debate and scrutiny" (Tallon, Turner, & Thorgeirsson, 2020, p. 17).

With some exceptions, "consultations with Government Departments did not appear to be a particularly satisfactory process from the [Irish] Council's perspective. Consultation often came late in the policy making process, therefore offering limited opportunity to the Council to offer advice which could influence thinking. It tended to be led by the Council rather than by Departments, and in practice



the majority of Departmental officials met the Council very infrequently – at best once annually – for formal consultation purposes” (Tallon, Turner, & Thorgeirsson, 2020, p. 17). These differences illustrate and underline the importance of the governance structure for the functioning of the Council. It is not only the content and the quality of the advice that will determine if the advice is taken into account.

The weaknesses identified with the Irish Council appear to be (partially) addressed in a recently enacted law. The changes made to the Irish Climate Change Act and to the advisory council means that the new council will resemble the British CCC.

There are important differences in the composition of the British and Irish councils. One strength of the CCC is that committee members are appointed exclusively on the basis of their scientific expertise. This gives credibility to the advice given. The composition of the Irish Council has been criticised (Tallon, Turner, & Thorgeirsson, 2020), with the argument that Council members should be appointed on the basis of their individual expertise in relevant disciplines and not on the basis of their institutional affiliation. The use of ex officio membership in a climate change advisory body is an unusual feature in comparative international terms. This is assumed to affect the Council’s expert status and can be seen as a compromise in terms of independence. Studies of climate advisory bodies show that best practice involves appointing members based solely on their individual expertise. Merging experts and stakeholders into advisory bodies can lead to confusion of roles, blurring the boundaries between independent expert and stakeholders, and between government and independent expert, and posing a real risk of sub-optimal results (Tallon, Turner, & Thorgeirsson, 2020).

6.2 Stakeholder Climate Policy Forums and Inter-Ministerial Climate Policy Forums with Stakeholders – Iceland and Austria

In this section two different stakeholder forums are discussed, the Icelandic Climate Council, Loftslagsráð and the National Climate Protection Committee in Austria. While both include different stakeholders, the Austrian committee also has a strong presence of government officials in terms of Ministers.

6.2.1 ICELANDIC CLIMATE COUNCIL – LOFTSLAGSRÁÐ

The first comprehensive law on climate change in Iceland was adopted in 2012. The legislation covers provisions aimed at mitigating and adapting to climate change and the regulations for the EU Emissions Trading Scheme. The purpose of the law is to reduce greenhouse gas emissions, increase carbon sequestration from the atmosphere, promote adaptation to reduce adverse consequences of climate change, and create conditions for the government to meet Iceland’s international climate commitments. In addition, Icelandic climate work is guided by climate action plans. The Icelandic government presented a new climate action plan in September 2018 and an updated version of the climate action plan was presented in June 2020. The climate action plan is Iceland’s main instrument for achieving its commitment in the Paris Agreement, in particular its emission reduction target for 2030 and stated targets for carbon neutrality by 2040. With an amendment to the Climate Act 2019, the Icelandic Climate Council, Loftslagsráð, was created.



Role and Mandate

The Icelandic Climate Council functions as a watchdog, as well as an advisor and convenor. It is an independent body whose role is to hold government authorities accountable and provide advice on policy goals and specific measures related to climate change. The Council fulfils its role by reviewing the Government's climate action plans, promoting an informed debate on measures to reduce greenhouse gas emissions and to increase carbon sequestration, and advises on adaptation to climate change. According to the law, the Council's tasks are as follows:

- provide advice on the reduction of greenhouse gas emissions and on measures for carbon sequestration;
- provide advice on climate change adaptation;
- review the government's climate policies and plans during the preparation phases;
- carry out educational initiatives and dissemination of information on climate issues to the public, businesses, institutions, and municipalities;
- review proposals from government agencies about monitoring and climate related research;
- work on other tasks the Minister assigns to the Council at any given time.

In practice, the Icelandic Climate Council functions in the same way as an independent scientific council (Evans, et al., 2021). While the Council performs many functions as a scientific climate policy council, the Climate Council also acts as a forum for stakeholders, designed to allow a multiplicity of voices to enter the national discussion on climate policy. The Council is an important forum for stakeholders to present proposals and ideas to the government and for promoting dialogue between representatives of different perspectives to discuss different ways of dealing with the climate-related challenges. The Council also consults with the Icelandic Government and its authorities.

An annual action plan is published that describes the Council's goals, priorities and issues at any given time. In its work, the Climate Council has particularly emphasised the following aspects:

- Mitigation measures to reduce emissions and increase greenhouse gas sequestration.
- Risk assessment and resilience to climate change.
- Public awareness of the climate problem and ways to combat it.

When it comes to promoting an informed discussion, exchange of information and education, the Council seeks to both increase public awareness, knowledge and commitment to climate change and raise awareness of the seriousness of the issue, but also share optimism with information on ways to succeed. Furthermore, the Council seeks to promote greater cooperation and consensus on the need for successful action, cooperation with stakeholders, the state, local authorities, the scientific community, business, and the general public. As for their role in providing information to the broader public, the Chair of the Climate Council, Halldór Thorgeirsson, said that the Council has not been able to provide enough and that a major challenge is the lack of staff (Mjöll Ólafsdóttir, 2019).

Members of the Council

The Icelandic Climate Council consists of 15 members, including representatives of the business community, universities, municipalities, consumer associations, and environmental protection associations, as well as other representatives who are deemed necessary to be members of the Council at any given time. The Minister also appoints the chairman and vice-chairman of the Climate Council,



as well as a representative of young people. Members of the Climate Council are appointed for four years at a time.

Advice and Reports

The Icelandic Climate Council has so far published six statements and discussion papers, e.g., on carbon neutrality as a concept and what is needed to strengthen scientific advice on climate issues in Iceland. They have also published six opinions on e.g., the government's climate action plans and the nature of climate governance.

While the Council is new and little has been done in terms of evaluating what the Council has achieved, Nikolakis and Guðjónsson examine the development of voluntary carbon dioxide projects in Iceland and find that the “Icelandic Climate Council's cooperation platform brings different sectors together for climate action, though institutional fragmentation and misaligned incentives are critical barriers to cooperation” (Nikolakis & Guðjónsson, 2021, p. 5).

6.2.2 THE NATIONAL CLIMATE PROTECTION COMMITTEE, AUSTRIA

In 2011, Austria adopted the Climate Change Act (Klimaschutzgesetz, KSG), which sets emission ceilings for a total of six sectors and defines rules for the development and implementation of effective climate mitigation measures outside the EU Emissions Trading Scheme. Originally, two official bodies were formed – the National Climate Protection Committee (Nationales Klimaschutzkomitee, NKK) and the National Climate Protection Advisory Board (Nationaler Klimaschutzbeirat, NKB) – to monitor the implementation of the KSG continuously. NKK consisted of top representatives of the federal government, the provinces and the social partners, whereas the members of NKB, who had the obligation to give NKK advice, included representatives of the parliamentary parties, environmental organisations and the scientific community. In a 2017 amendment to the Austrian KSG, the NKB was abolished, while the mandate and membership of the NKK were extended to take its place and was made more general (Schulev-Steindl, 2020).

Role and Mandate

The NKK functions as an advisor and convenor. According to Austria's Climate Protection Act, the NKK is responsible for advising the government on issues relating to Austrian climate policy in the light of the objectives of the Paris Agreement, in particular on the long-term reduction of greenhouse gas emissions towards a low-carbon society, adaptation to the unavoidable consequences of climate change and long-term scenarios for increasing energy efficiency and the share of renewable energy sources in final energy consumption. The NKK serves as a stakeholder dialogue forum, a scientific advisory board and an inter-ministerial coordination mechanism (Evans, et al., 2021). However, it is not tasked with directly reviewing the progress of the Austrian Government. The Committee meets at least once a year and makes its recommendations with a three-quarters majority with at least half of the representatives at present.

When it comes to the NKK's mandate, an evaluation of the Austrian climate legislation concludes that the involvement of the NKK in the actual design of measures is very limited and results of the consultations are not binding. According to the current design of the procedure in accordance with the KSG, there are no requirements to include the NKK in the specific planning of measures. Further, the NKK does not have an explicit advisory role in the annual evaluation of compliance with the sector targets (Schulev-Steindl, 2020).



The Members of the Council

The composition of the NKK represents a broad spectrum of representatives from politics, administration, science, business and civil society. The members are prescribed in the Climate Protection Act §4. It consists of: one representative from each of the political parties represented in the National Council (Nationalrat); one high-ranking representative each from eight ministries including, e.g., the Federal Ministry of Finance, the Austrian Federal Chancellery, The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology, the Federal Ministry of Education, Science and Research; the nine federal states; the Austrian Federal Economic Chamber; Chamber for Workers and Employees; the Austrian Trade Union Federation; the Federation of Austrian Industries; the Austrian Consumer Information Association; the Austrian Association of Cities and Towns. Finally, there are also science representatives and three representatives from Austrian environmental protection organisations.

The NKK is hence a broad body in the classic social or multi-stakeholder partnership tradition, in which political actors, representatives of different interests, as well as scientific representatives are involved. The various members represent very different stakeholders and bring a variety of expertise, which enables a comprehensive dialogue on the design of long-term climate policy. On the other hand, it has been argued that science is not sufficiently involved in the discussion process, as only one among about three dozen people is a representative of the scientific community (Schulev-Steindl, 2020).

Advice and Reports

The work in the NKK has lacked publicly available results and therefore lacks transparency.

6.2.3 COMPARISON - ICELAND AND AUSTRIA

The climate advisory bodies in Iceland and Austria differ in that in Austria, ministers are also included in the Council, in addition to a number of stakeholders. Both Iceland and Austria bring together various societal actors in their climate councils in order to create broad support for climate policy. The Icelandic Council is significantly smaller than the Austrian equivalent. Previous research has shown that a smaller council is preferable (Averchenkova & Lazaro, 2020. Dudley, Jordan, & Lorenzoni, 2021). This may therefore be an advantage of the Icelandic Council. With regard to both councils, the law that regulates the council regulates that certain groups must be included. In the Icelandic law, a shorter list of societal actors to be included is given, whereas the Austrian legislation has an extensive list of both ministers and societal stakeholders to be included in the Committee.

The choice of setting up the advisory body as a stakeholder climate policy forum can be understood in the light of the country's political culture. The Austrian climate work is characterised by the corporatist political culture that exists in the country. It can be discussed whether the inclusion of societal partners is favourable for the development of actionable climate policy. It has been argued that climate policy in Austria has in many respects lagged behind other European countries, and that this is largely due to the strong tradition of social partnership and consensus in Austria (Brand & Pawloff, 2014). Especially the "specific way in which corporatist actors have privileged access to decision making" (Brand & Pawloff, 2014, p. 785). They argue that the social partnership organisations' employers and employees were in conflict over "social and distributional policies and the corporatist mode of decision making brought about a compromise." When it comes to climate policy, these "organisations often have similar inter-



ests (with the exception of the Chamber of Agriculture on renewable energy), i.e., avoiding progressive policies as these tend to incur more short-term costs for the members of the respective organisations, and as such the balanced mechanism of conflict resolution becomes an unbalanced forceful collection of interests trying to scale down ambition on climate and energy issues” (Brand & Pawloff, 2014, pp. 785-786). Hence, in their analysis, they find that the strong corporatist structure in Austria has hindered the development of effective policies to deal with climate change in the country. To what extent the NKK can serve as a progressive force in Austria can therefore be questioned. This should be considered when establishing a stakeholder climate policy forum.

When it comes to the Austrian Council’s twin role as both a stakeholder climate policy forum and a body that provides scientific advice, its rationale has been questioned. Schulev-Steindl argues that, in view of the different objectives associated with the establishment of a social partnership dialogue on the one hand and scientific advice on the other, it is advisable to entrust these tasks to two different bodies (Schulev-Steindl, 2020). It is suggested that an interdisciplinary scientific climate protection council should be set up. This body could be responsible for advising on the long-term climate strategy, setting and evaluating goals as well as on necessary measures and their predictable consequences. The recommendations of this scientific council would serve as a basis for political decision-making and the selection of individual measures and strategies, the precise design of which should then be agreed in a separate committee in dialogue with the social partners and interest representatives (Schulev-Steindl, 2020). The status of the recommendations is also important and the recommendations of the scientific advisory board should be as binding as possible for the government. Even if, for constitutional reasons, it is not possible to directly make the recommendations binding, their inclusion should be ensured by procedural requirements. In this way, the constant and comprehensive integration of scientific advice in decision-making processes and the ex-ante and ex-post evaluation of programs of measures should be ensured (Schulev-Steindl, 2020, p. 21). These recommendations highlight the importance of clarifying the role of a council as well as the importance of the governance and institutional structure in which the council is embedded. In particular, to make it mandatory for the government to respond to the council’s recommendations could significantly increase the impact.



7. Evidence of Success Factors

Because climate advisory bodies are a fairly recent phenomenon it is hard to draw decisive conclusions about what makes them effective or efficient. However, previous research has demonstrated the following success factors:

1. **Independence and Scientific Integrity**

It is important that climate advisory bodies have an appropriate and clear mandate (Averchenkova, Fankhauser, & Finnegan, 2018). When designing a climate advisory body, the focus should be on ensuring institutional stability, independence, and expertise (Averchenkova & Lazaro, 2020). The advisory body should be permanent to be able to maintain constant pressure on governments and to follow-up actions taken to ensure accountability. It is also important that the advisory body is given a broad enough mandate to conduct its own independent analysis. Both the individual experts and the institution as a whole need to be independent of any political influence (Averchenkova & Lazaro, 2020).

2. **Membership of the Advisory Body**

The climate advisory bodies should consist of independent technical experts who serve for a given period that is not tied to the electoral cycle (Averchenkova & Lazaro, 2020). Members should be appointed on the basis of their individual technical expertise in the disciplines central to climate change policy, including climate science, natural science, economics, engineering, social and behavioural sciences, and relevant sectoral expertise (Averchenkova, 2021; Tallon, Turner, & Thorgeirsson, 2020). Furthermore, climate advisory bodies should not be too large - between five to fifteen members would be an optimal size (Averchenkova & Lazaro, 2020. Dudley, Jordan, & Lorenzoni, 2021). Bodies that are too large risk becoming ineffective, cumbersome, and may fail to provide consensual policy advice that can lead to significant policy changes (Averchenkova & Lazaro, 2020).

3. **A Robust Governance Framework**

The broader climate legislation is important for how effective any climate advisory body can be and climate advisory bodies should be supported by a robust governance framework. Averchenkova finds that “a robust system for managing climate action should be seen as a prerequisite for the work of an advisory body” (Averchenkova, 2021, p. 7). Evans et al. emphasize that the existence of a process for setting national climate targets and adopting measures opens up for the recurring opportunity for a climate advisory body to influence climate policy (Evans, et al., 2021). Without such repeated policy cycles, climate advisory bodies lack a clear channel for informing policy. The countries whose climate governance systems exhibit a high degree of formality, accountability and specificity are best positioned to take advantage of the value that a climate advisory body can provide.

4. **Resources**

Lack of resources can be a challenge for climate advisory bodies to fulfil their mandates (Evans, et al., 2021) and it is therefore important that the advisory body is allocated sufficient funding by the government to fulfil its obligations. A climate advisory body benefits from support from a secretariat, which could be established specifically for this purpose or hosted by an existing institution (Averchenkova & Lazaro, 2020). There is a big difference in terms of the support given to the existing advisory bodies, where the British CCC is supported by a secretariat of 30 people while others only consist of a few staff with administrative duties. While the size of the secretariat is



not directly related to the impact of the council, a “large research team generally means more expertise, more issues covered, more detailed analyses as well as increased stakeholder outreach—and gives the body more weight in the overall governance system, which in turn can influence its impact on policy-making” (Evans, et al., 2021, p. 34).

5. Interaction with Government

There should be clearly established routines for the interaction between the climate advisory body and the government. This will facilitate a more positive response to advice and recommendations from the climate advisory body. A factor that strongly influences the impact of the advice given by a climate advisory body is whether the government is legally obliged to respond in some form, which is the case in e.g., UK, Denmark and France (Evans, et al., 2021). Furthermore, it is important that climate advisory bodies present reports and findings that can be translated into feasible policies in order for them to have an impact (Dudley, Jordan, & Lorenzoni, 2021).



8. Conclusion

A finding from this report is the significance of how the climate advisory body is institutionally designed and the quality of the advice it provides. This will determine the extent to which it has an impact on the climate policy in a country in terms of compliance with climate and decarbonization goals. When established, the mandate of the advisory body is crucial for its ability to function and strengthen the implementation of national and global climate goals. It is important that the advisory body has a clear mandate that is linked to an established government institution. If an advisory body is to be scaled up to a regional or global level, it is important to think about the policy and institutional structure it is embedded in, and how the advisory may complement (or compete) with existing intergovernmental expert organisations, such as the IPCC or the newly established European Scientific Advisory Board on Climate Change. Another success factor linked to the advisory council's institutional embeddedness, is the obligation for a government and/or a parliament to take the council's recommendations into account and respond to them, i.e., the existence of accountability mechanisms. This is a challenge if, for example, the British CCC (which is seen as a model for climate policy advice) was to be "scaled up" to global levels. The strengths of the CCC are linked to the broader robust climate legislation that exists in the UK. However, the global climate governance lacks supranational legislation and authority and thereby suffer from both a legitimacy and implementation gap (Haas, 2004).

One important question is whether the council's main purpose should be to monitor and assess progress toward climate goals, provide scientific advice, issue policy recommendations, stimulate outreach and public communication and promote dialogue among stakeholders and citizens in society. This report demonstrates that in order to attain credibility and trust for the advisory body, the function to provide scientific advice should be done by highly qualified and independent scientists with professional integrity. However, there is frequently overlap between functions of science advice and public communication, both of which are important for all types of climate advisory bodies.

If the climate council is set up as a scientific advisory body, the members of the council should be chosen for their expertise, rather than for holding a specific role and task in government. This is to affirm the council's independence, scientific weight and integrity. In the case of Ireland, the inclusion of *ex officio* government members was criticised as it risked compromising the independence of the council.

If a council has a function to stimulate stakeholder and citizen dialogue, it is important to think about which societal groups are targeted and invited and who are allowed to speak. A stakeholder council will always raise questions about representation, inclusion and access. This is clear from the Austrian case. While labour market actors were well suited to compromise and propose pragmatic solutions on issues such as labour policy for society, they acted as veto players when it came to the climate policy.

Furthermore, previous research indicates that the advisory body should not be too large as it will hamper decision-making. The size can vary in particular between advisory bodies that are scientific climate policy councils and those that are stakeholder forums. In general, scientific climate policy councils are considerably smaller with approximately eight to ten people including a chair.

A final finding concerns the fundamental question of how science and policy interact, which relates to the preconditions for setting up a climate advisory body that has a significant and intended impact to strengthen implementation with



climate goals. The connection between science and policy is often expected to be linear and uni-directional, where scientific knowledge informs a presumably rational and ordered process of public policy formation. With this perspective, what constitutes a policy problem is the result of an agenda-setting process, and the goal of a given policy follows from the formulation of the problem (Miljand, 2020). However, this instrumental view on how science informs policy has been criticised for its lack of realism (Amara, Ouimet, & Landry, 2004), and for its simplified understanding of how policy is made (Weiss, 1980). Instead of this rational process, science can be used (or ignored) in many different ways in the policy process, including to justify or legitimise a pre-existing position without changing it (Lederman, 2012). Furthermore, there can be long time lags between when scientific evidence is presented and when it has an impact on policy. While it is methodologically challenging to ascertain time periods between causes and effects, in her study of the UK environmental committee, Owens found that the time from advice to impact on policy can vary between 15 minutes and 25 years (Owens, 2015). Based on this, it is important to have realistic expectations on how quickly a climate policy council can have a direct impact on climate policy. It is also important to consider more indirect effects such a body can have in terms of contributing to a more enlightened public debate.



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Endnotes

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