

# CCC Insights Briefing 2

## The Climate Change Committee

The UK Climate Change Committee (CCC) is the statutory body created by the UK Climate Change Act 2008. It provides independent expert advice on the UK's climate goals and climate policy, and monitors progress on reducing greenhouse gas emissions and adapting to climate change. Since the CCC was established the UK has reduced emissions while growing its economy. The CCC has strengthened the use of evidence in UK climate policy and has enjoyed broad support from business, policymakers, researchers, and the public.

Key features of the CCC's approach include: a strong statutory underpinning backed by a cross-party political consensus, an emphasis on evidence and analysis, an open and transparent approach, both with stakeholders and the media, and a willingness to address the barriers to action alongside its recommendations.

This briefing provides a summary of the role of the CCC, how it is structured and how it operates. We also set out observations on what has worked effectively for CCC over its twelve years in operation.

This briefing is structured in four sections:

- The role of the CCC
- The structure of the CCC
- The CCC work programme
- Working effectively as an independent advisory body

This briefing is one of a series on the workings of the UK Climate Change Act and the Climate Change Committee (CCC).

#### **Box 1:** CCC 'Insights' Briefings

This briefing is part of a series of eight that document the work of the UK Climate Change Committee (CCC) under the Climate Change Act. The CCC is the UK's independent advisory body on climate change mitigation and adaptation tasked with providing regular advice to Government on emissions targets and adapting to a changing climate. The CCC publishes annual assessments of progress towards meeting these targets, biennial assessments of progress in adapting to climate change, and supporting analyses on key emerging issues. These briefings are intended as a practical guide to give insights on the CCC's work and learning over the twelve years since its foundation in 2008.

The briefings in this series are:

- UK Climate Change Act
- The Climate Change Committee
- The UK's Net Zero target
- Advising on the level of the UK's carbon budgets
- Monitoring progress in reducing the UK's greenhouse gas emissions
- Conducting a climate change risk assessment
- Monitoring progress on adapting to climate change in the UK
- Past Climate Change Committee reports

# 1. The role of the Climate Change Committee

The Climate Change Committee (CCC) is the independent expert advisory body established by the 2008 UK Climate Change Act. It consists of a committee of independent experts appointed to provide advice on reducing greenhouse gas emissions (the Climate Change Committee), a parallel committee to provide advice on adapting to climate change in the UK (the Adaptation Committee), and an analytical secretariat to support the committee members in the delivery of their duties.

The CCC's duties are set out in the UK Climate Change Act. They cover climate mitigation and adaptation. The CCC recommends goals and tracks progress towards them.

The key duties of the CCC are set out in the Climate Change Act:

- **Providing advice on the long-term (2050) emissions target.** The long-term emissions target for 2050 in the Climate Change Act was set based on advice by the CCC. Initially requiring at least an 80% reduction in emissions relative to 1990, the target was revised in 2019 to at least 100% ('Net Zero'), again based on CCC advice. The target can only be changed following changes in scientific understanding or international circumstances and after taking account of advice from the CCC.
- **Providing advice on the setting of UK carbon budgets.** The pathway of UK emissions reductions towards 2050 are set out in a series of legally-binding five-year long carbon budgets, which fix the allowable levels of economy-wide greenhouse gas (GHG) emissions for each five-year period. The CCC is required to provide advice on the level of each budget at least six months before they must be set in law.
- **Assessing progress towards targets for emissions reduction.** The CCC must produce an annual assessment of the progress towards meeting the UK's legislated carbon budgets and the long-term emissions goal for 2050. This assessment report is laid before the UK Parliament and the Government is required to produce a formal response to its findings.
- **Providing advice on climate risks.** The Climate Change Risk Assessment, which is undertaken every five years, assesses the current and future climate risks facing the UK. The CCC is required to give its view on the risks facing the UK and which ones should be prioritised over the next five years.
- **Assessing progress in adapting to climate change in the UK.** The Act requires the CCC to produce, every two years, an assessment of the progress in adapting the UK to deal with current and future climate risks. Specifically, this assessment focuses on progress towards achieving the goals of the Government's latest National Adaptation Programme (which sets out to address the risks highlighted in the previous Risk Assessment). This assessment report is laid before the UK Parliament and the Government is required to produce a formal response to its findings.
- **Providing further advice, analysis and information relating to climate change as requested by Government.** The Act allows the Government to ask the CCC for dedicated advice on a specific aspect of climate change in order to inform its policy. This power has been used several times. For example, in 2010 the Government asked the CCC to provide advice on the role renewable energy could play in meeting the UK's carbon budgets.

Policy decisions ultimately rest with the elected government, drawing on CCC advice.

In these statutory roles the CCC always acts in an advisory capacity. This allows the democratically-elected Government the possibility to diverge from the CCC view, maintaining Government accountability on climate policy.

To date the Government has always followed CCC advice on the major decisions, including the level of the five legislated UK carbon budgets.

The CCC also fulfils a similar set of duties under devolved climate legislation in Scotland and Wales.

The CCC's work has promoted an evidence-based approach to climate policy.

Over time, by fulfilling these statutory roles the CCC has also developed a broader role as a 'knowledge broker', engaging widely and promoting an evidence-based approach on climate change. This has generally been considered to have a positive impact on public narratives and climate policy in the UK.<sup>1</sup> For example, in 2020 the CCC provided input into the Climate Assembly UK, a citizens' assembly brought together to consider how the UK should meet its 2050 Net Zero target.

## 2. The structure of the CCC

The CCC is made up of the members of the Committee, the members of the parallel Adaptation Committee, and a supporting secretariat.

The CCC is publicly funded.

The CCC currently receives core funding from the UK, Scotland and Wales Governments, with an annual budget of around £3.7 million (2019-2023). This covers Committee and secretariat costs and includes a budget to commission external specialist research (typically around 25% of CCC annual spending over recent years). The core level of the overall budget is determined by the sponsoring Government departments and can be supplemented on an ad-hoc basis to support projects or activities outside of its main remit. To date the CCC has generally been sufficiently resourced to carry out its statutory duties effectively.

The significant budget allows the CCC to conduct an in-depth analytical work programme and to be an influential contributor to effective policy development. Other independent climate advisory bodies exist with smaller budgets internationally, often with a narrower focus on monitoring progress towards targets.

### Committee Members

The committee members are appointed to have a breadth and depth of expertise along with the skills and capacity to scrutinise evidence-led analysis and to communicate the results to Government and other stakeholders:

- The Committee and Adaptation Committee are each made up of five to eight independent senior experts appointed by national authorities for a maximum of two four- or five-year terms.\* Members of the Committees are tasked to act in an expert, impartial and objective manner applying an evidence-led approach and avoiding conflicts of interest.<sup>3</sup> They serve in a personal capacity and do not represent their affiliated institutions.
- Members of the Committees are chosen based on their expertise and experience, not as representatives of interest groups. Members' expertise includes sectoral knowledge, economics, climate science, politics, behaviour and investment.

CCC Members are appointed to provide a broad range of expertise.

\* Term limits are useful to ensure that the way the Committee thinks about addressing climate change is regularly refreshed and subject to new challenge. It also enables the areas of expertise represented on the Committee to change over time, reflecting the changing needs of advising on UK climate policy.

Their experience covers climate change specific matters and public policy making more generally (for example, a former Government chief scientific adviser, the head of the financial regulator during the financial crisis and the Director of the Institute of Fiscal Studies have all been past or present committee members). Members come from a variety of professional backgrounds including academia, business and the public sector.

- Each Committee has a chairperson with the chair of the Adaptation Committee also a member of the mitigation Committee. This provides strong links between the work of the two Committees.
- Members also take on a role as 'Champions' on particular areas of CCC work related to their expertise. They provide extra technical input, advice and challenge on these areas and play a more active role in shaping CCC analysis and advice.

The existing Committee members are listed in Box 2, with short biographies available on the CCC's website - [www.theccc.org.uk](http://www.theccc.org.uk).

The Committees meet for a full day once a month. The secretariat present analysis which receives challenge and direction by the members of the committees. External experts are often invited to give direct evidence to the Committees. Decisions on key aspects of advice to the Government, such as the recommended level for the carbon budgets, are taken at these meetings.

Committee members and Chairs are contracted for a total of two to four days per month. Other than Board meetings, they spend their time acting as Champions for their specific areas, undertaking public speaking engagements, chairing stakeholder roundtables, and reviewing draft publications.

**Box 2:**  
Members of the Climate Change Committee and Adaptation Committee (2020)

**Climate Change Committee:**

- Lord Deben (Chair): former UK environment Minister (1993-1997)
- Baroness Brown: materials and transport engineering
- Professor Keith Bell: electrical and power engineering
- Professor Nick Chater: behavioural science
- Professor Piers Forster: climate science
- Dr Rebecca Heaton: business, energy sector and land-use
- Paul Johnson: economics and public policy
- Professor Corinne Le Quéré: climate science

**Adaptation Committee:**

- Baroness Brown (Chair): materials and transport engineering
- Professor Michael Davies: buildings and environment
- Professor Richard Dawson: civil engineering and climatic risks
- Ece Ozdemiroglu: environmental economics
- Rosalyn Schofield: business, sustainability in food and retail sectors and environmental law

## CCC Secretariat

The Committees are supported by a full-time analytical secretariat of around 30 staff.

The Committees are supported by a secretariat of around 30 full-time staff (approximately 25 of whom are analysts) under the direction of a Chief Executive and Director of Analysis. Secretariat analysts are generally 'specialist all-rounders' who can apply their specific knowledge and skills across a wide variety of analytical tasks. Staff are recruited both from within the UK Civil Service and externally, for example from academia and consultancy. The vast majority of the analysts have quantitative backgrounds, for example in economics, engineering or physical sciences. The secretariat may be bolstered with additional temporary recruitments to provide particular skills or expertise needed for a piece of work.

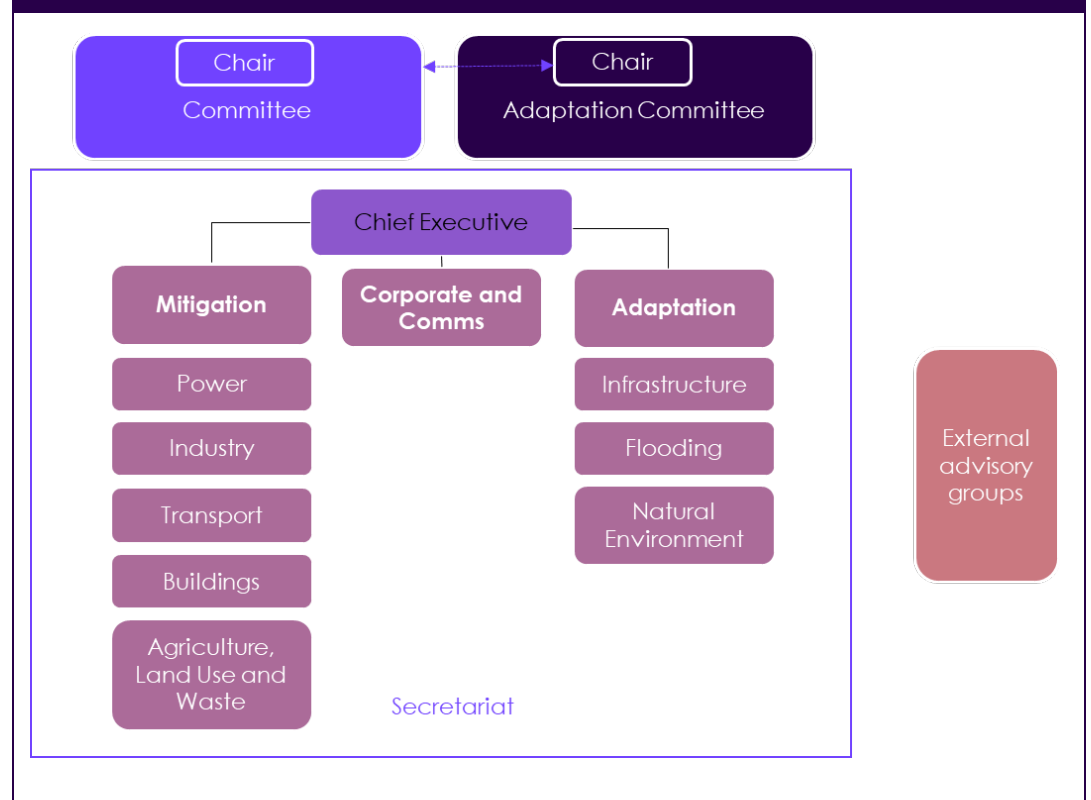
The secretariat undertakes detailed in-house analyses to underpin its advisory and progress-monitoring roles. The secretariat is largely organised around the sectors responsible for UK emissions, with a cross-sectoral 'central' team compiling analysis at the economy-wide level, and a dedicated team serving the Adaptation Committee (Fig. 1). This approach allows analytical teams to develop deep expertise in an aspect of the climate challenge, whilst remaining flexible enough to support cross-cutting work between different sectors.

A significantly larger fraction of the CCC secretariat works on emissions reductions compared to adapting to climate change. This reflects the level of funding provided from the sponsoring UK Government departments for emissions reduction (Business Energy and Industrial Strategy) and climate adaptation (Department for Environment, Food and Rural Affairs).

The CCC also has a small communications team.

There is also a dedicated communications team tasked with publishing CCC outputs and supporting the wider role of the CCC as an impartial expert body in the public discourse on climate change.

Fig. 1: The structure of the CCC



### 3. The CCC work programme

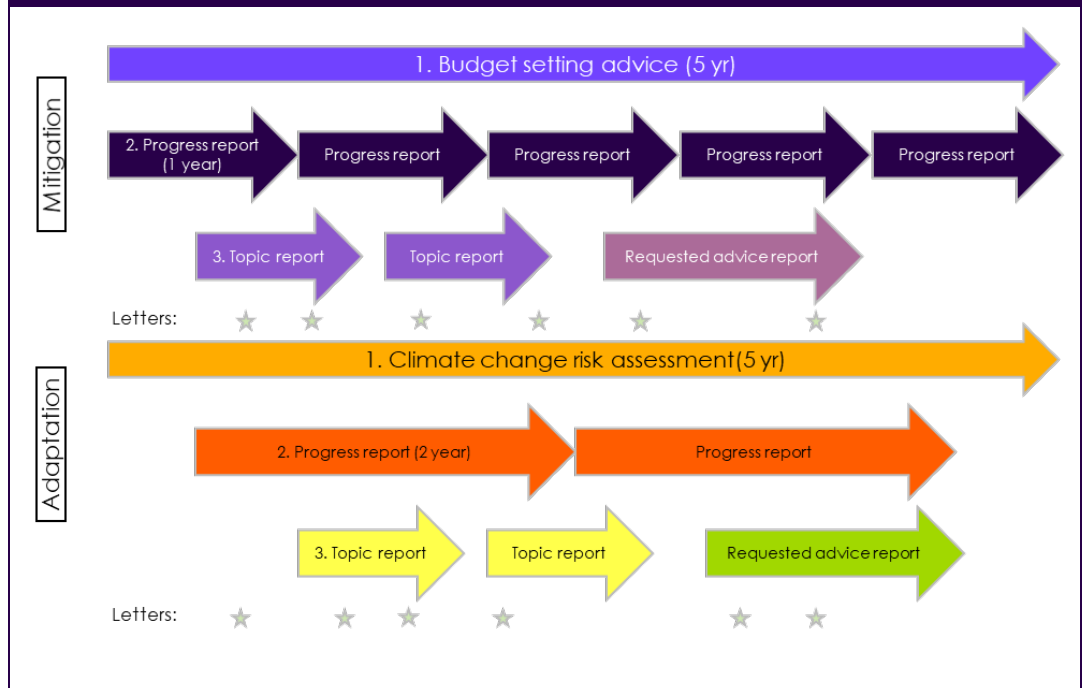
The Climate Change Act guides the CCC's work programme.

The CCC has largely organised its work programme around three streams, reflecting the regular reporting requirements set out in the Climate Change Act (Fig. 2):

- **Advice on emissions budgets and climate risks (five-year cycle).** Required at least every five years by the Climate Change Act, these are major focuses for the CCC in fulfilling its statutory obligations and will normally be the primary focus for around one to two years of the whole mitigation and adaptation secretariats and Committees.
- **Assessing progress on emissions reduction and adapting to climate change.** Required every year (mitigation) or two (adaptation) by the Climate Change Act, these assessments will normally be the main focus of the secretariat and Committee for three to six months. The CCC's first Progress Reports were longer projects (e.g. nine months), reflecting the need to develop the CCC's approach to monitoring progress.
- **In-depth assessments of specific topics.** CCC also undertake assessments of specific issues (e.g. the role of renewables, hydrogen, or biomass; themes such as energy bills or coastal flooding). Topics can be specifically requested by Government or identified by the CCC as key emerging issues through its core duties. These focussed assessments generally take eight to twelve months and draw on only a part of the secretariat team. They are most commonly produced during the interim years in the five-year statutory advice report cycles.

Across these streams the CCC has generally published its primary output in the form of a written report, explaining the analysis it has considered and how that has informed the advice given in the report. These are supplemented with methodology documents and datasets. These reports have tended to build on each other over time, with the assessments of specific topics generally forming a key part of the evidence base for the reports required under the Climate Change Act. Follow-ups to the reports are often published in letters to the relevant Government Minister to address specific or time-sensitive issues.

Fig. 2: Illustrative timeline for the CCC's reporting cycles



The CCC's main work streams involve in-house analysis, running research projects, engaging with stakeholders and external experts, and communicating findings.

In developing its advice and reports, CCC activity covers several areas:

- **In-house analysis.** Secretariat time is predominantly spent on undertaking bespoke analysis required to make evidence-based recommendations. This will involve a range of complex and simple modelling tools as well as secondary analysis of the published literature. This is often necessary as many published sources in the literature may not be directly relevant for answering the specific question of interest in the UK context.
- **Commissioned research.** The CCC commissions dedicated research from academia or consultancies to supplement its own in-house analysis. This is useful where significant external expertise would be required to develop a part of the evidence base or where stronger analytical tools already exist outside the CCC. The findings and recommendations of these research projects help to shape the Committee's views, but they are not automatically accepted as the CCC's position. All research is published on the CCC website alongside the CCC report it was commissioned for. For particularly challenging or uncertain pieces of evidence, the CCC will commission and publish an independent peer-review (e.g. peer review of industrial elasticities of supply as part of its 2013 industrial competitiveness assessment). It has also published critiques alongside the original evidence (e.g. the 2011 Mineral Products Association response to a piece of CCC-commissioned research on the lifecycle emissions benefits of using wood in construction).
- **Stakeholder engagement.** The secretariat and Committees regularly engage with Government, businesses, academia and civil society to ensure that the CCC's work is informed by a wide range of evidence and priorities. This is done through convening bilateral engagements, calls for evidence, workshops and roundtables and is vital to identifying constraints or enabling factors for effective climate policy. The CCC has also ran a number of public participation panels, and in 2020 took on an advisory role for the UK Climate Assembly commissioned by Parliament.<sup>4</sup> This is a growing area of interest.



- **Expert advisory groups.** The CCC has used its convening power to bring together external experts to advise CCC on particular areas or to help steer the CCC's internal analysis.\* Each group has a chair and members that cover a broad range of expertise and/or stakeholder groups. They typically meet several times for discussions over a time-limited period and produce an independent report to the Committee, which is published alongside the CCC's outputs. The expert advisers serve in a personal capacity, so are not explicitly representing the views of their affiliated organisation. The use of these advisory groups has grown over time and provides good value for money, with members providing in-kind support. They are particularly useful for generating expert policy advice in areas where evidence is more limited or where judgements are required. They can also work as a way to forge consensus in controversial areas, such as bioenergy. In these cases, it is particularly important to have balanced membership and for the Chair to record areas of both agreement and disagreement between the group members.
- **Communications.** The CCC supports the publication of its reports with an active communications programme across traditional and social media. This is important in raising awareness of the CCC's output, ensuring its findings are reported accurately, and briefing key stakeholders on the report's findings. These activities help maximise the report's findings on UK policy and strengthen the CCC's value and influence.

Each report involves a different balance of activity across these areas, determined by a combination of budget, staff availability and delivery timeframe. The detailed workplan for each report is worked up in advance by the secretariat and agreed with the committees. Within the work programme, the monthly Committee meetings provide a regular focus point for work planning.

\* For example, three groups were convened for the CCC's advice on a Net Zero target, covering economics, scenarios and the international context.

## 4. Working effectively as an independent advisory body

The CCC's effectiveness has been based on its statutory underpinning, its use of evidence to reach its recommendations, strong leadership and a transparent, open approach.

We have identified several features from the CCC's first twelve years of operation that we consider critical to operating effectively:

- **Statutory underpinning and cross-party support.** Having the CCC's duties written into primary legislation that was supported by both governing and opposition parties embeds an evidence-based approach and ensures that the CCC's recommendations are given a full hearing.
- **A focus on evidence and analysis.** Appointing CCC members for their expertise rather than their interests has allowed CCC to be a credible arbiter and be seen to take judgements based on the best evidence without partisanship or vested interest. The analytical secretariat has ensured that the CCC operates at the cutting-edge of research and has helped avoid disagreements arising from different views of the evidence. The CCC uses UK Government guidance on economic appraisal, and puts strong emphasis on quality assurance.<sup>5</sup>
- **Strong leadership.** As a relatively new and small organisation the CCC's leadership has been vital to its effectiveness. In particular, the appointment of recognised and respected public figures as Committee Chairs lent the organisation power and profile in its early days. Chief executives with strong analytical understanding and communication skills have strengthened the CCC's impact and credibility with stakeholders.
- **Transparency.** The CCC has operated with high transparency through two routes. First by publishing and widely promoting all outputs, research and underpinning evidence. Second, in its day-to-day operations, by engaging widely on emerging findings and emerging thinking. These approaches have informed public discourse, helped the CCC to access the best evidence and focus on the right priorities, and strengthened the CCC's credibility.
- **Listening and responding.** The transition to a low-carbon economy faces many potential roadblocks. Some of these reflect misconceptions, but many are real and require an effective policy response. The CCC's engagement has allowed it to identify and respond to challenges before they undermine climate action. For example, CCC reports demonstrated that energy bills overall had been reduced by climate policy, countering media stories that policy was dramatically increasing bills. CCC recommendations to target support for industries at competitiveness risk due to climate policy have helped broaden business buy-in to CCC advice.

We also note particular ways of working that have enabled the CCC to fulfil its duties effectively:

- **Drawing on existing external expertise.** As a respected and independent body, the CCC has a strong ability to convene experts and stakeholders from across the range of relevant communities. This has included setting up expert advisory groups on key areas and engaging with and seeking input from stakeholders in business, research and civil society. This has been critical to draw together a wide range of insights into a coherent picture from which robust policy recommendations can be identified.

CCC analysts aim to build a consensus on the available evidence, allowing the Committees to focus on making evidence-based judgements.

- **Working with shared evidence bases where possible.** Throughout its work the CCC has close links to the analytical base within Government. The CCC and Government departments share a memorandum of understanding (MoU) supporting the sharing of analytical data and modelling. Implementation of the MoU is supported by regular meetings between senior analysts from Government and the CCC. This improves the value for money to the taxpayer by avoiding duplication of analytical effort. It also means that differences in view between the CCC and the Government are limited to different judgements as opposed to the use of different evidence.
- **Identifying key judgements early and how they will be informed.** Judgements weighing advantages and costs across the many different criteria are needed when recommending levels for carbon budgets or prioritising climate risks. Early effort is made to set out the decision space for each of these judgments and to identify the important evidence and analyses that are needed to help reach fair and balanced conclusions. This allows evidence gaps to be identified early and CCC resources allocated where most needed.
- **Identifying and improving on data gaps.** Providing effective advice to Government requires good sources of data. As the CCC does not generally collect primary data itself, it relies on existing accessible datasets to underpin its in-house analysis. Where the CCC's work indicates a data gap, it aims to work with others to develop the necessary datasets and gain access to them – bringing long-term benefits to the quality of advice it can offer in the future.

Many of these approaches have evolved over the last twelve years. Continued evolution of the ways that the CCC works will be required over the coming years to ensure it fulfils its statutory duties as effectively as possible. This will likely require a greater focus on policy and delivery, and on the many aspects of the just transition, as the required pace of change increases again.

# Endnotes

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- <sup>1</sup> London School of Economics (2018) *10 years of the UK Climate Change Act*; UK Government (2014) *Triennial Review of the Committee on Climate Change*
- <sup>2</sup> CCC (2019) *Annual Report and Accounts*
- <sup>3</sup> The CCC policy on avoiding conflicts of interest is available at:  
<https://www.theccc.org.uk/about/transparency/>
- <sup>4</sup> Climate Assembly UK (2020) *The path to net zero*
- <sup>5</sup> HM Treasury (2018) *The Green Book: Central Government Guidance on Appraisal and Evaluation*; CCC (2020) *Quality Assurance of Evidence and Analysis*



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