How the Scottish Government is set up to deliver climate change goals

Governance and risk management arrangements for net zero targets and adaptation outcomes

Prepared by Audit Scotland
April 2023
Key messages

1. **The Scottish Government has improved how it organises itself to support delivery of its climate change goals since the then First Minister declared a climate emergency in 2019.**

   Given the urgency, further improvements to key aspects of governance are required. Adapting to the impacts of climate change, such as extreme weather events, has had less focus than reducing emissions. It is not clear enough how some Scottish Government groups link together to ensure a coordinated approach, risking duplication of effort and inconsistency. The lack of frequent and consistent reporting, alongside gaps in performance monitoring, make it difficult to gain assurance of overall progress. There has been no workforce plan in place for the Director General for Net Zero area since it was established in November 2021, although one is expected in spring 2023.

2. **Systematic risk management is needed so the Scottish Government can identify the key risks to meeting its climate change goals and take effective action to address them.**

   Since the appointment of a Director General for Net Zero, improvements to risk management processes and documents have been made. But climate change risk management arrangements remain underdeveloped and further work is needed. The evidence base and process to identify and score risks is not always clear. Actions to address risks are sometimes vague. And the Scottish Government does not have a systematic, structured process in place for tracking actions included in climate change risk registers. Failure to adapt to the impact of climate change is a longer-term risk that requires action now, but this has not been prioritised as highly as emissions reduction risks. Risk management arrangements that are not fully developed could increase the chances of net zero targets being missed and Scotland not being adequately prepared to cope with the impacts of climate change.
To improve climate change governance arrangements, the Scottish Government should:

• Better align climate change governance groups with each other, and with wider corporate governance arrangements. This includes establishing and adhering to:
  – clear and distinct roles and remits for the main climate change groups and individuals, with up-to-date documentation
  – clear reporting lines and escalation procedures between the main governance groups.

• Ensure that effective assurance arrangements are in place for all its climate change governance groups, including:
  – the Deputy Director Network, which should keep a record of its business, decisions, and actions
  – having a performance monitoring framework with clear indicators that ensures reporting is structured, consistent and frequent, and provides assurance that progress towards climate change ambitions is being made.

• Ensure that a Director General Net Zero workforce plan is in place by spring 2023, which takes sufficient account of the number of staff and skills required to deliver on its climate change responsibilities.
To improve climate change risk management arrangements, the Scottish Government should:

- Ensure that all climate change risks are effectively identified and managed by:
  - ensuring that processes for identifying and scoring climate change risks are consistent and evidence-based, and fully consider longer-term impacts
  - introducing clear processes for tracking progress against actions to address identified climate change risks
  - monitoring and reviewing progress against those actions to ensure that they are carried out and that their impacts are evaluated
  - developing contingency plans for high scoring risks, particularly where there are insufficient actions in place to address them
  - being clear about how and when risks should be escalated and include mechanisms to escalate risks to executive level decision-makers.

- Ensure that the Global Climate Emergency Programme Board has a risk register in place that has clear reporting lines to the wider climate change and corporate risk management systems.
Background

1. The United Nations has said that climate change is the defining issue of our time. Climate change affects every country, community and individual. Urgent action is needed from governments, businesses and individuals to adapt to the current impacts of climate change and reduce greenhouse gas emissions (the gases in Earth’s atmosphere that trap heat and contribute to climate change).

2. Addressing climate change is a huge challenge. The Scottish Government has ambitious goals for tackling climate change, which is one of its priority policy areas. In 2019, Scotland became one of the first countries in the world to declare a climate emergency. It has set a legally binding target of becoming net zero by 2045, five years earlier than the rest of the UK. Interim targets to support the achievement of the net zero goal include a 75 per cent reduction in greenhouse gas emissions by 2030. Some of the Scottish Government’s key climate change responsibilities include:

- producing a Climate Change Plan that sets out how emissions will be reduced
- publishing a national adaptation programme that seeks to build climate resilience and respond to the risks set out in the UK Climate Change Risk Assessment
- adopting a just transition approach to becoming a net zero economy by preparing plans for key sectors.

3. The Climate Change Committee (CCC) is an independent, statutory body that was established to advise the UK and devolved governments on emissions targets. It reports on progress made in reducing emissions and adapting to the impacts of climate change. In 2022, this committee reported that Scotland’s progress in reducing emissions was falling behind its legally binding targets and that progress towards adapting to the impact of climate change has stalled.

4. The Scottish Government cannot achieve net zero targets and adaptation outcomes alone. The Scottish Government must work with the UK Government, Scottish public bodies, the private sector, third sector organisations and individuals to change behaviours and combat climate change. Public bodies have a specific statutory duty to contribute to national targets for reducing emissions and to climate change adaptation.

How emissions will be reduced
The process where emissions are cut to as close to zero as possible with any remaining emissions re-absorbed from the atmosphere. Net zero means there is a balance between the amount of carbon emissions we put into the atmosphere and the amount of emissions we take out.

National adaptation programme
There is a legal requirement for the Scottish Government to publish a five-year plan that sets out how Scotland is preparing for the impacts of climate change.

Just transition
A just transition approach seeks to ensure that the benefits of moving to a net zero economy are enjoyed by everyone and no one is negatively impacted.
outcomes. Private businesses and third sector organisations must also play a role, such as by providing financial assistance and supporting individuals to adapt their behaviours to combat climate change. The Scottish Government recognises that its public sector leadership role is essential in achieving national ambitions, and that it needs to work collaboratively with others to deliver on climate change goals.

5. Climate change is a complex policy area. Effective governance and risk management arrangements are essential if the Scottish Government is going to lead and drive delivery of Scotland’s climate change ambitions. Governance and risk management arrangements are interlinked and fundamental to ensuring that organisations are well managed and programmes of work are delivered effectively. They support planning, policy and financial decision-making, and help identify and address risks to success. Regular monitoring of performance and resources, to ensure delivery of policies and projects within agreed timescales and budgets, is a critical part of good governance. Systematic arrangements help to ensure transparency, accountability and assurance, as well as continuity of progress and knowledge in the event of staff changes. This is particularly important in the context of an extremely complex area where progress needs to be made quickly.

About this report

6. This report has been prepared on behalf of the Auditor General for Scotland (AGS). It is part of a wider programme of climate change work being carried out by Audit Scotland on behalf of the AGS and the Accounts Commission, both of which have identified climate change as an audit priority. The role of public audit in, and our approach to, supporting the public sector in delivering climate change ambitions is set out in Auditing climate change: Our strategy.

7. This report focuses on how effective the Scottish Government’s climate change governance and risk management arrangements are in supporting it to drive the delivery of Scotland’s national net zero targets and climate change adaptation outcomes. It reflects the position before the election of a new First Minister in March 2023.

8. Our findings and recommendations are based on evidence gathered through document reviews and interviews with the Scottish Government. We also spoke with key stakeholders, namely the CCC, Sustainable Scotland Network, Adaptation Scotland and the Convention of Scottish Local Authorities (COSLA). We have made recommendations to help the Scottish Government strengthen how it is set up to deliver its climate change goals. We plan to follow up on progress against our recommendations.
The Scottish Government’s climate change governance arrangements have improved but key gaps remain

Addressing the causes and consequences of climate change requires good cross-government working

9. The Scottish Government has made ambitious climate change commitments. Delivering on these ambitions requires climate change to be considered throughout the policy-making process and embedded in decision-making across government. Over the last four years, changes have been made to how the Scottish Government is organised in relation to climate change, including the creation of senior level roles and groups, to raise its priority and help improve cross-government working.

10. The causes and consequences of climate change sit across multiple policy areas. Responsibility for driving the delivery of climate change ambitions spans several Scottish Government Cabinet Secretaries and Ministers. Prior to the election of a new First Minister in March 2023, five of the nine Cabinet Secretaries were permanent members of the Cabinet Sub-Committee on the Climate Emergency. This was created in November 2021, as part of the Bute House Agreement, and following the establishment of a new Cabinet Secretary post for Net Zero, Energy and Transport. Exhibit 1 (page 8) shows the ministerial governance structures in place for climate change at March 2023. Lines of accountability for climate change are complex due to its cross-cutting nature. It is vital that effective governance arrangements are in place to enable the Scottish Government to deliver on its climate change ambitions and provide assurance that progress is being made.

11. The Scottish Government has eight Directors General (DGs). They are accountable for delivering specific policies and managing different directorates. The Director General for Net Zero (DG Net Zero) role was created in November 2021, with responsibility for leading the Scottish Government’s work on supporting the delivery of net zero targets and adaptation outcomes. However, not all climate change responsibilities rest with the DG Net Zero. For example, moving to a greener economy is

Bute House Agreement
This is an agreement between the Scottish Government and the Scottish Green Party Parliamentary Group to work together to respond to the climate emergency and build a green recovery from Covid-19.

Directors General (DGs)
The Scottish Government is structured into several directorates. Directorates are managed by Directors General. There are eight Directors General:
- DG Communities
- DG Corporate
- DG Economy
- DG Education and Justice
- DG Health and Social Care
- DG Net Zero
- DG Scottish Exchequer
- DG Strategy and External Affairs.
Exhibit 1.
Climate change responsibilities stretch across several Cabinet Secretaries and Ministers

The Climate Change Plan covers eight sectors:
- Electricity
- Waste and circular economy
- Buildings
- Agriculture
- Transport
- Land use, land use change and forestry
- Industry
- Negative emissions technology

Notes:
1. This exhibit refers to Cabinet Secretaries and Ministers in place prior to the election of the new First Minister in March 2023. It shows examples of how their responsibilities link to sectors in the Climate Change Plan.
2. At March 2023, the five Cabinet Secretaries in the exhibit were members of the Cabinet Sub-Committee on the Climate Emergency. The following were not members: Cabinet Secretary for Education and Skills, Cabinet Secretary for Health and Social Care, Cabinet Secretary for Justice and Veterans and the Cabinet Secretary for Constitution, External Affairs and Culture.

Source: Audit Scotland and the Scottish Government
essential for delivering net zero targets and responsibility for this aspect of policy and spending is held by the DG Economy. Producing the skilled workforce needed for a green and just transition is the responsibility of the DG Education and Justice.

12. DGs do not have the authority to make policy or spending decisions in other DG areas. The delivery of climate change ambitions is dependent on all eight DGs, who are expected to embed climate change considerations into their financial and policy decision-making processes. The interdependencies between DG areas mean that cross-government collaboration is required to progress climate change policies and manage competing priorities. The DG Net Zero is responsible for working with all DGs, and their respective directorates, to ensure climate change is considered in activities they lead on.

13. In addition to ministerial and DG level changes, the Scottish Government set up the Global Climate Emergency Response Programme Board (later changing its name to, and referred to in this report as, the GCE Programme Board) after it declared a climate emergency in April 2019. The GCE Programme Board was established to provide oversight and assurance for climate change action at the corporate level and encourage a cross-government approach, with membership from across government. A Deputy Director Network was later established, as well as various policy delivery boards, to support the work of the GCE Programme Board.

14. The Scottish Government’s climate change governance arrangements have constantly evolved since the then First Minister declared a climate emergency in 2019, and continue to do so. The governance arrangements have adapted in response to events, such as the Covid-19 pandemic, the Bute House Agreement, and appointments of the DG Net Zero and new Permanent Secretary. Over time, the Scottish Government’s governance arrangements for climate change have given greater priority, focus and visible leadership to climate change in government (Exhibit 2, page 10). The creation of a dedicated DG Net Zero role has given impetus to strengthening some aspects of governance, for example by:

- refreshing the remit of the GCE Programme Board and placing more emphasis on monitoring, evaluation, and delivery

The Global Climate Emergency Programme Board was initially set-up to coordinate the Scottish Government’s response to the climate emergency. It is now chaired by the DG Net Zero and focuses on delivery and monitoring. This includes coordinating several cross-government projects intended to support a whole-systems approach to delivering on key climate change objectives, including specific responsibility for delivering future Climate Change Plans.

The Climate Change Deputy Director Network supports the GCE Programme Board in coordinating cross-government projects at divisional level for climate change mitigation, and just transition. It has specific responsibility for delivering future Climate Change Plans and reports.
Exhibit 2.
Timeline of changes to the Scottish Government’s climate change and corporate governance arrangements to support delivery of its climate change commitments

April 2019: The First Minister declares a climate emergency.

June 2019: Scottish Government agrees to a collaborative budget review to improve how climate change is considered in the Scottish Budget.

August 2019: First meeting of the GCE Programme Board. This short-term, cross-government group acts to deliver on emission targets.

October 2019: Deputy Director Network established to oversee development of the Climate Change Plan Update. It coordinates cross-government projects aimed at ensuring a whole-systems approach.

November 2019: Climate Change Division now functions as two separate divisions (domestic and international).


March 2021: GCE Programme Board members agree on the continuation of the board’s work.

May 2021: Two new cabinet posts created to deliver on climate change.¹

August 2021: Bute House Agreement and two ministerial posts created for the Scottish Green Party.²

November 2021: DG Net Zero post established. DG Economy previously had responsibility for net zero.

January 2022: New Permanent Secretary appointed.

January 2022: Executive Team starts to meet in three distinct modes (Delivery, People and Strategic).³

January 2022: Corporate Board sub-boards realigned to sit more closely with DG assurance arrangements.

May 2022: GCE Programme Board remit refreshed to focus more on delivery of key milestones.

Notes:
1. Cabinet Secretary for Net Zero, Energy and Transport, and Cabinet Secretary for Rural Affairs and Islands.
2. Minister for Zero Carbon Buildings, Active Travel and Tenants’ Rights, and Minister for Green Skills, Circular Economy and Biodiversity.
3. A fourth mode, Investment Assurance, was added later in 2022.

Source: Audit Scotland
• establishing more frequent and consistent reporting at DG level to the Executive Team
• improving links between the Cabinet Sub-Committee on the Climate Emergency and the GCE Programme Board.

15. Clear and effective governance arrangements are essential to support the delivery of climate change policies and projects. Exhibit 3 (page 12) shows the Scottish Government’s corporate and climate change governance structures and how they are interconnected.

16. Despite improvements, we have found that some key elements of good governance are missing from the Scottish Government’s climate change governance arrangements or are used irregularly and inconsistently. For example:

• The GCE Programme Board is the main governance body in relation to delivering net zero targets and adaptation outcomes. Although it has a remit to provide strategic oversight and assurance for climate change at a corporate level, it does not cover all aspects of climate change. It is not clear how the Scottish Government ensures that it has sufficient strategic oversight and assurance of climate change actions. For example, separate boards exist for biodiversity and land use transformation, and the GCE Programme Board only included adaptation in its work two years after it was set-up (paragraph 17). It is not always clear how some climate change governance groups link together (for example the GCE Programme Board and the Deputy Directors Network) to ensure a coordinated approach, avoid duplication or inconsistencies and gain assurance. The links between climate change specific governance arrangements and the Scottish Government’s wider corporate governance arrangements are also not clear.

• Escalation and reporting processes are not always clear or adhered to. Frequent and consistent reporting is lacking between some key governance groups (for example, between the GCE Programme Board and the Executive Team, and between the Deputy Director Network and GCE Programme Board). The Deputy Director Network, which is a key climate change governance body with responsibility for delivering on the policies within the Climate Change Plan Update, operates informally, with no minutes of meetings being taken.
Exhibit 3.
The Scottish Government’s corporate and climate change governance arrangements

Policy Delivery Boards

- Biodiversity Strategy Board
- Blue Economy Board
- Climate Emergency Skills Action Plan
- Environment Strategy Project Board
- Land Use Transformation Portfolio Board (6x policy sub-boards)
- Transport Scotland Climate Change Directors Board
- Zero Waste and Circular Economy Board (4x policy sub-boards)

Advisory groups
(CCC, Just Transition, etc)

Cabinet Sub-Committee on the Climate Emergency

GCE Programme Board
(chaired by DG Net Zero)

Deputy Director Network

Scottish Parliament

Scottish Cabinet

Permanent Secretary

Corporate Board

Executive Team
(Delivery, Strategy and People Executives, Investment Assurance, and Performance Board)

DG Net Zero
(delivery directorates)

SG Audit and Assurance Committee

DG Assurance Boards

Key
- Formal reporting in place
- No evidence of formal reporting
- By exception reporting

Note: The Scottish Government describes reporting arrangements between some key governance groups as happening ‘by exception’. The Scottish Government has no standard definition of ‘by exception’ reporting. However, this generally means reports are only presented when updates (for example, about the achievement of, or risks and changes to, delivery milestones) are deemed to be required rather than reporting happening on a regular and frequent basis.

Source: Scottish Government and Audit Scotland
This means it is not possible to track its business, actions or outcomes. It is not clear how decisions to escalate items from the Deputy Director Network to the GCE Programme Board are made.

- **Performance monitoring** and reporting is inconsistent and underdeveloped. The GCE Programme Board’s monitoring of performance towards achieving net zero targets is improving, and monitoring and evaluation is now a key part of its work. So far, however, the GCE Programme Board has had an inconsistent approach to monitoring progress towards achieving the objectives in the Climate Change Plan Update and adaptation outcomes. Information is presented in different formats and on an irregular basis, making it difficult to assess the overarching progress. At the corporate level, the Executive Team now receives more regular and consistent performance information, known as a ‘dashboard’, on progress against the Climate Change Plan Update. This approach is not yet as well developed for adaptation. Climate change was not a priority area of business for the Performance Board during 2022. This reflects the Auditor General’s findings in his [Scottish Government 2021/22 annual audit report](#) that performance reporting arrangements across government could be improved.

- **Roles and responsibilities** change regularly and are not always clearly defined. The Scottish Government has created a range of new positions and governance groups over the last four years, with changing roles and remits, but documentation does not always reflect new arrangements and terminology is not always clear. The key DG Net Zero role was created in November 2021 but was not filled on a permanent basis until early 2023. The most recent climate change governance map reflects arrangements at June 2021, despite significant changes to both corporate and climate change governance arrangements having taken place since then. Frequent changes to complex, cross-cutting governance arrangements, and the lack of clear documentation, makes it difficult for teams across the Scottish Government to see where responsibilities lie and could hinder collaborative working on this cross-cutting priority area.

- There has been no **workforce plan** in place for the DG Net Zero area since it was established in November 2021, although one is expected in spring 2023. Climate change is a growing priority policy area, with an urgent need for progress if Scotland’s statutory targets are to be met. Some work has recently been done to explore resource requirements within DG Net Zero but it is difficult to calculate the impact of climate change policy on resource requirements across wider areas of government. All other DGs should consider how climate change ambitions may impact on their workforce requirements. It is unclear if the Scottish Government
has enough staff with the skills needed to deliver on its climate change commitments. More widely, the Auditor General’s 2021/22 Scottish Government annual audit report highlights the considerable strain being placed on staffing capacity and wellbeing across government. It notes that this is likely to intensify and that a comprehensive workforce strategy is required to ensure the Scottish Government’s approach to staffing levels is appropriately planned and coordinated across the organisation.

17. Climate change is already having a significant impact on Scotland’s communities, for example through flooding and severe weather events. The Scottish Government must take action to adapt and respond to the impact that climate change is already having. However, although there is now increasing focus on adaptation within the Scottish Government, governance arrangements to help Scotland adapt to the impact of climate change are less developed than those for reducing emissions. For example:

- The GCE Programme Board did not adopt adaptation as a formal workstream until May 2021, two years after it was established.
- Performance monitoring information for adaptation is not as developed as for reducing emissions, although the Scottish Government is currently developing an adaptation performance dashboard.
- The National Performance Framework’s climate change indicators focus on Scotland’s carbon footprint, greenhouse gas emissions and energy consumption from renewables. There are no indicators to monitor progress in relation to adapting to the impact of climate change.

Scotland’s National Performance Framework measures progress against 11 National Outcomes, through the use of a range of economic, social and environmental National Indicators.
Some progress has been made integrating climate change into decision-making but significant challenges and gaps remain

18. The Scottish Government has clear strategic goals on climate change, and there is strong messaging across government about the priority given to climate change and the need to embed climate change considerations in decision-making. Many of the climate change governance groups have a remit to improve cross-government working to ensure that climate change is integrated into both policy and financial decision-making. In September 2021, the GCE Programme Board’s revised Terms of Reference showed increased representation of DG Scottish Exchequer staff among its membership, and some progress has been made in considering climate change in budget planning and spending. For example:

- DG Scottish Exchequer staff are working with other DGs and their directorates to gain a collective understanding of competing financial and policy pressures, policy affordability and the impact of spending on climate change objectives.
- There is coordination across government when developing the Scottish Budget to ensure proposals fit with overall climate change ambitions, as well as the 2021 Bute House Agreement.
- The impact of climate change is being considered in a cross-cutting approach to authorising spending through the Resource Spending Review and Capital Spending Review.

19. There are, however, several significant challenges to ensuring that climate change is integrated into decision-making, as outlined below:

Climate change is competing with other areas for funding and staff

- Achieving net zero targets and adaptation outcomes requires significant investment. The Auditor General’s briefing on Scotland’s public finances highlights how the combined impacts of the Covid-19 pandemic and the cost-of-living crisis have contributed to creating the most challenging fiscal environment since devolution. These pressures will only intensify as public funding pressures increase and the need for action on climate change accelerates.
Climate change has to compete with other priority policy areas for funding. The Auditor General’s Scottish Government 2021/22 annual audit report explains how the financial pressures facing the Scottish Government have intensified in recent months, adding pressure to already limited budgets. The Scottish Government acknowledges that the prioritisation of climate change in discussions about resources and budgeting remains a challenge. The Scottish Government may need to revisit current policy and priority commitments.

Issues relating to workforce capacity and capability have been identified as key challenges by the Scottish Government at both organisation-wide and DG Net Zero levels. There is currently no strategic workforce plan for the DG Net Zero area, although one is expected in spring 2023 (paragraph 16).

The Scottish Government does not routinely assess the impact that policies and spending have on emissions

- The Scottish Government does not routinely carry out carbon assessments or capture the impact of spending decisions on its carbon footprint in the long term. This means that it does not know the impact of its policies or spending on greenhouse gas emissions. This is a complicated area and the Scottish Government recently commissioned work to address this (Case study 1, page 17).

- The Scottish Government does not assess how far the policies outlined in the Climate Change Plan Update will contribute to net zero. Following recommendations from the CCC, the Scottish Government is in the process of reviewing its emission reduction pathways to net zero for the new Climate Change Plan due to be published in 2024.

- The Scottish Government does not know how much the policies proposed in the current Climate Change Plan Update will cost and so is uncertain whether sufficient money will be available to support the commitments it has made. It is a legal requirement that the next version of the Climate Change Plan is fully costed. The Auditor General’s Scottish Government 2021/22 annual audit report recommends that the Scottish Government should ensure that its policy choices and spending commitments are fully costed and reported transparently.
Case study 1.
Improving assessment of the carbon impact of Scottish Government spending decisions and the Scottish Budget

ClimateXChange commissioned the Fraser of Allander Institute to undertake research in 2022 on behalf of the Scottish Government and the Scottish Parliament. This was part of the Joint Budget Review. It aimed to increase the transparency of climate change considerations in the Scottish Budget and to improve the extent to which decision-making within the Scottish Government is supported by an understanding of the consequences of spending choices on emissions.

The research found that the Scottish Government has:

- weaknesses in its understanding of the carbon impact of its policies
- a culture of not developing business cases or impact assessments at an early enough stage of the policy development process, which can affect the availability of data for carbon assessment
- weaknesses in accounting for climate change in the Scottish Budget. For example, the High-Level Carbon Assessment of the Scottish Budget accounts for the emissions impact of its policies and spending only once they have occurred, rather than the expected impact over the total lifespan of policies.

In response to the findings, the Scottish Government has outlined three strands of work to improve scrutiny and transparency of climate change matters in the Scottish Budget. The Scottish Government:

- has included a dedicated climate section in the 2023/24 Scottish Budget, which lists all spending that contributes to achieving statutory targets. It does not yet, however, include an assessment of the expected impact or identify areas of spending that negatively affect climate change goals
- has committed to enhancing its current approach to identifying and categorising all spending lines across the Scottish Budget with regard to their climate impact and intends to introduce this for the 2024/25 budget cycle
- is developing a government-wide net zero assessment, aimed at identifying the climate impact of major policies at an early development stage, and detailing the climate impact of individual policies and their associated budget allocations. The timescale for this is not known.

Source: ClimateXChange and Fraser of Allander Institute
The Scottish Government’s climate change risk management arrangements remain underdeveloped

20. Scotland’s targets to reach net zero emissions and adapt to climate change will require deep and rapid change across the whole of society. Recent reports by the CCC highlight the high risk that these goals will not be achieved. This high level of risk has also been identified by the Scottish Government.

21. The Scottish Government’s corporate risk management structures are designed to inform decision-making up to the highest levels of government (Exhibit 4, page 19). This includes informing decisions about how public spending is allocated. Effective risk management processes for climate change are essential to make sure that climate change is at the heart of the Scottish Government’s decision-making and that barriers to achieving climate change goals are addressed. This is particularly important given the scale of the challenge and the concerns raised by the CCC about progress to date.

22. Risk management in a cross-cutting area such as climate change is complex. The Scottish Government has identified multiple climate change risks, which are captured in numerous risk registers in different parts of the organisation. This network of risk registers captures risks spanning all levels, from individual projects to organisational-wide risks in the corporate risk register (Exhibit 5, page 20).

23. The Scottish Government has identified many different types of climate change risks. These range from large overarching risks of missing net zero targets, adaptation outcomes and just transition ambitions, to risks for individual sectors or projects. The Scottish Government has also identified cross-cutting risks, that is risks that affect climate change goals across government and the wider public sector, such as a lack of money or poor governance arrangements (Exhibit 6, page 21).
Exhibit 4.
Scottish Government risk management structure

Source: Scottish Government Risk Management Guidance
Exhibit 5.
Overview of Scottish Government climate change risk registers

- Corporate Risk Register
  - Climate Change Risk Register
    - Includes risks drawn from one or more of the risk registers below
  - DG Net Zero Risk Register
    - Risks escalated from one or more of the risk registers below

- Climate Change Plan Risk Register
- Biodiversity Risk Register
- Transport Scotland Risk Register
- Scottish Forestry Agency Risk Register
- Directorate for Energy and Climate Change Risk Register
- Directorate for Agriculture and Rural Economy Risk Register
- Directorate for Environment and Forestry Risk Register
- Directorate for Marine Scotland Risk Register

Topic-specific risk registers that were not included in the DG Net Zero internal assessment of risk management performance (known as Risk Housekeeping).
Agency risk registers that were not included in DG Net Zero internal assessment of risk management performance (known as Risk Housekeeping).
Risk registers included in DG Net Zero internal assessment of risk management performance (known as Risk Housekeeping). Some of these are referred to as ‘directorates’ in Scottish Government documentation but are agencies that sit outside of the internal directorate structure.

Policy boards may also have additional risk registers.

Source: Audit Scotland
Overarching net zero and just transition risks

There is a high risk that net zero targets will be missed and that a just transition will not be achieved.

Overarching adaptation risk

There is a high risk that national climate change adaptation outcomes will not be achieved.

Project or programme net zero risks

There are many risks for specific sectors or specific projects.

For example, the Scottish Government identified that delays to ScotWind leasing rounds could make it difficult to put in place the infrastructure needed to achieve renewable energy ambitions.

Cross-cutting risks

Risks that cut across all areas of climate change activity have been clustered into key themes, including:

- Financial
- People
- Operational
- Governance

Source: Audit Scotland
Progress to address identified risks is slow and the longer-term risks of failing to adapt to climate change have had less focus

24. The inclusion of a risk in the Corporate Risk Register means that it is more likely to be considered in executive level decision-making. An overarching risk that net zero targets will not be met has been included in the Corporate Risk Register since Scotland declared a climate emergency in 2019. The Scottish Government also recently made the need for the net zero targets to be met in a way that is fair to all (a just transition) a core part of this risk. The whole risk has been given a high risk score, meaning that it is very likely that net zero targets will not be achieved and that the impact of this would be severe. It is not, however, clearly specified what actions will be taken to reduce the overarching net zero risk or how the actions will impact on the risk score. Targets to reduce the risk score have been repeatedly missed and the level of risk remains high.

25. Up until December 2022, the Corporate Risk Register did not include a specific, overarching risk relating to the need to adapt to the impacts of climate change (although reference to these impacts were included as a consequence of the failure of global efforts to reduce emissions). The lack of a specific adaptation risk, with actions to address it, means that this critical issue was much less likely to be considered at an executive level than net zero targets. A specific adaptation risk was first included in the DG Net Zero Risk Register in March 2022 following the establishment of the new DG Net Zero role, which is indicative of an increasing focus on adaptation (paragraph 17).

26. However, the overall risk score for the overarching adaptation risk is much lower than the score for the overarching net zero risk (paragraph 24). The scoring for the specific, overarching adaptation risk is based on relatively short-term impacts and does not take the longer-term, more severe impacts of climate change on Scotland into account. This approach could reduce the level of urgency at executive levels for taking action to ensure that Scotland is resilient to the impacts of climate change. The focus on short-term impacts is not necessarily appropriate for assessing the impacts of climate change because the most severe impacts will be in the longer term.

Risk score
As part of risk management processes, risks that have been identified are scored in terms of how likely they are to happen and what the impact would be if they did. The Scottish Government scores likelihood on a scale of 1 to 5 and impact on a scale of 1 to 50. The highest level of impact is described as being a ‘destructive and unacceptable impact on objectives that would result in a major change to overall approach’. The impact score is then multiplied by the likelihood score to calculate the overall risk score.
Improvements have been made but weaknesses remain in the Scottish Government’s climate change risk management arrangements

27. It is standard practice for each DG area to have its own assurance board, which provides a dedicated forum for internal and external scrutiny of risks. The Scottish Government set up a new assurance board specifically focused on climate change when the DG Net Zero role was created in 2021, allowing for specific and increased focus on climate change. This was a positive step towards better climate change risk management arrangements within the Scottish Government.

28. Directorates within the DG Net Zero area took part in a Risk Housekeeping exercise in the summer of 2022 to assess the effectiveness of its new risk management arrangements. The maturity level of most of the directorates within DG Net Zero was assessed by the Scottish Government as ‘novice/organised’ for key areas, meaning that the directorates had only just started to implement processes in line with Scottish Government guidance.

29. We found several key weaknesses in the climate change risk management arrangements that the Scottish Government must address:

- The evidence base and process used to **identify and score** risks is not always clear.
- Details of many of the **planned actions** to address risks are vague and do not include intended completion dates or expected impact.
- How risks are **escalated** is not clear.
- **Ownership** of the same risks can differ between different risk registers, creating confusion and blurring the lines of accountability.
- The Scottish Government does not have a **systematic, structured process in place for tracking actions** included in climate change risk registers (Exhibit 5, page 20). This means that the Scottish Government cannot ensure that actions are carried out or their impacts evaluated.
- Risk management arrangements lack **contingency plans** for significant risks, setting out details of what alternative plans should be followed if the original plan does not work.
- **The GCE Programme Board does not have risk management arrangements in place,** despite a recommendation from a 2019 internal review that this should be a priority.
30. Without fully developed risk management processes, barriers to progress might be missed when important decisions are being made, increasing the likelihood of national climate change objectives not being met. The DG Net Zero area has put plans in place to make improvements to its risk management processes, which include:

- directorate risk champions producing a risk management action plan to improve processes and documentation and achieve a higher risk management maturity rating
- ensuring that relevant staff within the directorate complete risk management training
- allocating senior (director) level responsibilities for climate change risks identified by the most recent UK Climate Change Risk Assessment.

31. Addressing climate change is a colossal challenge. The Scottish Government has an important leadership role in driving delivery of Scotland’s climate change ambitions. It has improved how it organises itself to support delivery of key climate change goals, but further improvements are needed. The scale and urgency of the challenges ahead are enormous, and work to support the delivery of Scotland’s net zero targets and adaptation outcomes will place significant demands on Scottish Government staff and finances. It is critical that the Scottish Government continues to focus on developing and improving its governance and risk management arrangements to support it to deliver on Scotland’s climate change ambitions.
How the Scottish Government is set up to deliver climate change goals

Governance and risk management arrangements for net zero targets and adaptation outcomes

Audit Scotland’s published material is available for download on the website in a number of formats. For information on our accessibility principles, please visit: www.audit-scotland.gov.uk/accessibility

For the latest news follow us on social media or subscribe to our email alerts.