

March 2022

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# Is Scotland climate ready?

## 2022 Report to Scottish Parliament

### Recommendations

# Adapatation Committee recommendations

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Unless otherwise stated, all recommendations can be implemented within this SCCAP cycle.

**Table 1**  
Cross-cutting recommendations

<b>Operationalising the SCCAP</b>	The Scottish Government should set specific and quantified targets for levels of resilience across Scottish society under each top-level SCCAP outcome. This would allow the Scottish Government to measure progress against targets and increase accountability on their delivery.
<b>Operationalising the SCCAP</b>	The Scottish Government should develop a clearer framework to link these activities to outcomes in the SCCAP. This would also enable better assessments of whether adaptation actions are happening at sufficient scale as well as where key gaps exist.
<b>Operationalising the SCCAP</b>	The Scottish Government should clearly assign ownership of SCCAP outcomes to a specific part of Government to ensure accountability.
<b>Monitoring and evaluation</b>	The Committee urgently recommends that an M&E framework is developed and implemented for the SCCAP, including indicators which measure the effectiveness of adaptation actions where possible.
<b>Monitoring and evaluation</b>	The Scottish Government should analyse the information on climate risks across the public sector reported annually under the public bodies climate change reporting duty.
<b>Covid-19 recovery</b>	The Scottish Government should integrate consideration of climate risks into plans for digital infrastructure and collect data on the performance of digital infrastructure under weather-related disruption. This would support ongoing working from home as part of recovery efforts.
<b>Covid-19 recovery</b>	The Scottish Government should ensure homes are retrofitted to be truly fit for the future by assessing overheating risks in different building types and enabling adaptation measures, such as improved ventilation, shading and shutters, where required.
<b>Covid-19 recovery</b>	The Scottish Government should build a better understanding of the potential adaptation and resilience economy and invest in upskilling to support an increase in adaptation-related jobs.
<b>Covid-19 recovery</b>	The Scottish Government should ensure supply chain risks from extreme weather are included in key economic development strategies as resilient supply chains underpin a strong economy.
<b>Just transition</b>	The Just Transition Commission should include adaptation within its work. Many of the principles outlined by Scotland's Just Transition Commission are also relevant to adaptation policy. The Just Transition Commission should also report annually on Scotland's progress in building climate resilience fairly.
<b>Just transition</b>	The Scottish Government should develop and publish an assessment of the characteristics of vulnerability and adaptive capacity across Scotland. Much of the knowledge base needed to understand the distributional consequences of climate impacts and adaptation actions remains at an early stage. This work would aid the capacity for authorities at all levels across Scotland to consider fairness in the design of adaptation policies.
<b>Just transition</b>	Expand public engagement activities under the SCCAP to put fairness at the centre of efforts to implement its vision of a well-adapted Scotland. This engagement programme should focus on exploring issues of fairness in some of the most challenging aspects of adaptation (e.g., coastal retreat) and in the provision of public funding for adaptation.
<b>National planning framework (consolidated from across sectors)</b>	<p>The forthcoming National Planning Framework 4 (NPF4) should commit to ensuring that new developments do not put more water into the public sewers than what was there before, taking account of climate change, and deliver SuDS that provide multiple economic, social and environmental benefits in all developments.</p> <p>NPF4 should include clear criteria for any essential infrastructure to be permitted in the future flood plain and place stronger requirements for flood mitigation or resilience standards on any essential infrastructure developed within the future floodplain.</p> <p>NPF4 should include explicit reference to the location of new infrastructure to consider future climate change impacts.</p> <p>The Monitoring programme for the upcoming NPF4 should include collection of evidence on whether new infrastructure assets are designed and located with appropriate consideration of climate change impacts.</p>

**Table 2**  
Natural Environment recommendations

Priority area	Recommendations
<b>Farmland habitats and species</b>	<p>An overarching 'wrapper strategy' would be useful to clearly outline the relationships and interactions between the multiple action plans and strategies both published and in development for the farmland habitats and the broader environment.</p> <p>Plans underway to replace existing agricultural land management policy must include better recognition of the need to protect and enhance the condition of farmland habitats and species.</p> <p>The new biodiversity strategy should take into account and support farmland habitats and species, as well as other terrestrial habitats and species.</p>
<b>Terrestrial habitats and species</b>	<p>A monitoring framework should be developed for the National Peatland Plan. It should include regular monitoring and reporting on peatland condition, supported by a research programme to develop suitable indicators.</p> <p>The new biodiversity strategy should respond to climate risks to habitats and species; include clear targets and effective monitoring and evaluation; and target climate-sensitive and invasive species.</p> <p>The Scottish Government should identify barriers to achieving current peatland targets consider financial incentives or facilitating private investment in peatland restoration</p>
<b>Freshwater habitats and species</b>	<p>Include adaptation to changing climatic conditions as an integral part of the next River Basin Management Plan, ensuring that climate change projections of temperature, precipitation and sea level rise are considered.</p>
<b>Marine and coastal habitats and species</b>	<p>The Marine Plan (2015) should be updated to reflect the latest evidence in the Independent Assessment of UK Climate Risk (CCRA3) and UKCP18 climate projections.</p> <p>Scottish Government should implement the recommendations of the Environment, Climate Change and Land Reform Committee, in particular to:</p> <ul style="list-style-type: none"> <li>• Publish a vision statement on regional marine planning identifying priority regions for future rollout</li> <li>• Publish new national guidance for regional marine planning. This should include how climate change adaptation can be incorporated into regional marine plans</li> </ul>
<b>Commercial forestry</b>	<p>Scottish Forestry should include indicators on pests and pathogens as part of monitoring the Forest Strategy Implementation Plan and report on them regularly.</p>
<b>Agricultural productivity</b>	<p>The Scottish Government should develop a long-term strategy to replace existing arrangements aligned to the EU Common Agricultural Policy, which prepare the agricultural sector in Scotland for the range of risks and opportunities from climate change. Actions should respond to risks from flooding, more intense rainfall and higher temperatures, and improve the technological capability of the sector to respond to threats such as changing pest and disease risks.</p> <p>A structured approach to incorporating the potential impacts from a changing climate into long-term land use planning is essential for land managers to successfully adapt to climate change. The Scottish Government should help increase awareness of the potential climate risks to agricultural production, through owning and supplying the required information, and providing a mechanism for landowners to use it.</p>
<b>Commercial fisheries and aquaculture</b>	<p>The Future Fisheries Management Strategy, The Finfish Aquaculture Sector Plan and the Farmed Fish Health Framework should be updated with specific adaptation actions, SMART objectives and appropriate monitoring and evaluation to support commercial fisheries and aquaculture to adapt to a changing climate and ocean acidification.</p>

**Table 3**

Health recommendations

Priority area	Recommendations
<b>Resilience of the population to changes in temperature</b>	<p>Scottish Government should regulate the overheating provision as set out in the Energy Standards consultation. Expand the requirement to cover refurbishments and retrofit of existing buildings and conversions of non-domestic buildings to residential and incentivise measures for retrofitting passive cooling measures in existing homes.</p> <p>Scottish Government should include adaptation actions in the Housing to 2040 Strategy and route map to consider future increases in extreme weather, including overheating, to meet its aims to have houses that are fit for the future and that avoid expensive future retrofitting.</p> <p>Scottish Government should conduct or commission time series analyses of mortality data to identify trends and how vulnerability to cold and heat is evolving.</p>
<b>Resilience of people to pathogens</b>	<p>Public Health Scotland should assess the changing risks to people from vector-borne diseases, making use of the most recent Independent UK Assessment of Climate Risk. This should consider areas for future monitoring and surveillance.</p>
<b>Air Quality</b>	<p>Scottish Government should regulate ventilation as set out in the Energy Standards consultation. Ensure that Building Regulations simplify and clarify guidance on ventilation in homes to ensure good indoor air quality and comfort to occupants.</p>

**Table 4**

## Built Environment recommendations

Priority area	Recommendations
<b>River and coastal flood alleviation</b>	<p>The next cycle of Local Flood Risk Management Plans should identify specific and measurable objectives for reducing flood risk.</p> <p>Flood risk funding should be ring-fenced at the local level to ensure sufficient funds to implement Local Flood Risk Management Plans over the next six years.</p> <p>Reporting on Local Flood Risk Management Plans should go beyond tracking the implementation of actions and look at the extent to which objectives are being achieved, with support from SEPA.</p>
<b>Surface water flood alleviation</b>	<p>The forthcoming National Planning Framework 4 (NPF4) should commit to ensuring that new developments do not put more water into the public sewers than what was there before, taking account of climate change, and deliver SuDS that provide multiple economic, social and environmental benefits in all developments.</p> <p>To help improve the information on SuDS and surface water flood risk, urgently begin collecting data on sewer capacity and SuDS location, type and capacity. This would bring the level of information in line with that for river and coastal flood risk defences.</p>
<b>Development in flood risk areas</b>	<p>Data should be collected on new developments in flood risk areas and planning applications which are approved against SEPA's advice, in order to monitor local authority and SEPA objectives of avoiding future flood risk.</p> <p>NPF4 should include clear criteria for any essential infrastructure to be permitted in the future flood plain and place stronger requirements for flood mitigation or resilience standards on any essential infrastructure developed within the future floodplain.</p>
<b>Coastal erosion risk management</b>	<p>Scottish Government should consult on new legislation to supersede the 1949 Coastal Protection Act or to amend the Flood Risk Management (Scotland) Act 2009 to take into account the impacts of climate change on coastal erosion and for relevant local authorities, require a Shoreline Management Plan.</p>
<b>Emergency planning and response</b>	<p>Scottish Government should review the funding model for the Scottish Fire and Rescue Service, with a view to providing multi-year funding to incentivise long-term planning and preparedness for climate change.</p>
<b>Recovery from flooding</b>	<p>Scottish Government should develop national guidance for local authorities on recovery from flooding, including clear criteria for when central government funding will be made available after severe weather impacts.</p>
<b>Water demand in the built environment</b>	<p>Risk assessments for private water supplies should be amended to include consideration of current and future water scarcity.</p>
<b>Resilience of buildings to extreme weather</b>	<p>Scottish Government should include adaptation actions in the Housing to 2040 Strategy and route map to consider future increases in extreme weather, including wind and rain, to meet its aims to have houses that are fit for the future and that avoid expensive future retrofitting.</p> <p>Review current building standards under future climate scenarios to determine if they are sufficient to manage the risks of extreme rain and wind.</p>
<b>Resilience of the population to changes in temperature (from Health recommendations)</b>	<p>Scottish Government should regulate the overheating provision as set out in the Energy Standards consultation. Expand the requirement to cover refurbishments and retrofit of existing buildings and conversions of non-domestic buildings to residential and incentivise measures for retrofitting passive cooling measures in existing homes.</p> <p>Scottish Government should include adaptation actions in the Housing to 2040 Strategy and route map to consider future increases in extreme weather, including overheating, to meet its aims to have houses that are fit for the future and that avoid expensive future retrofitting.</p>

**Table 5**  
Infrastructure recommendations

Priority area	Recommendations
<b>Energy generation, transmission and distribution</b>	Urgently include adaptation and increased resilience to climate risks as a key priority in the upcoming Energy Strategy. Identify actions which can be taken within Scotland and to influence UK Government policy which would respond to the multiple climate risks affecting energy generation, transmission and distribution in Scotland.
<b>Public water supply infrastructure</b>	Scottish Water leakage targets should be determined with consideration of potential climate change risks to future water availability, rather than just on the basis of economic measures.
<b>Airports</b>	<p>The Islands Connectivity Plan (ICP) should include a consideration of climate risks and specific adaptation actions for the next planning period, in line with the National Islands Plan transport resilience objective</p> <p>The Transport Scotland adaptation strategy should include specific adaptation objectives to meet the priority in the Transport Strategy 2 on climate action and the aim to ensure the transport system is adapted to projected climate change impacts</p>
<b>Ports and ferries</b>	<p>The Islands Connectivity Plan (ICP) should include a consideration of climate risks and specific adaptation actions for the next planning period, in line with the National Islands Plan transport resilience objective</p> <p>Where there are insufficient data on the impacts of climate change on ports and ferries in Scotland, Transport Scotland should commission research to fill these gaps</p> <p>The Transport Scotland adaptation strategy should include specific adaptation objectives to meet the priority in the Transport Strategy 2 on climate action and the aim to ensure the transport system is adapted to projected climate change impacts</p>
<b>Road network</b>	The Transport Scotland adaptation strategy should include specific adaptation objectives to meet the priority in the Transport Strategy 2 on climate action and the aim to ensure the transport system is adapted to projected climate change impacts
<b>Telecoms, digital and ICT infrastructure</b>	In the digital strategy, include actions which can be taken within Scotland and to influence UK Government policy which would respond to the multiple climate risks affecting digital infrastructure in Scotland.
<b>Design and location of new infrastructure</b>	<p>NPF4 should include explicit reference to the <i>location</i> of new infrastructure to consider future climate change impacts</p> <p>The Monitoring programme for the upcoming NPF4 should include collection of evidence on whether new infrastructure assets are designed and located with appropriate consideration of climate change impacts.</p>
<b>Infrastructure interdependencies</b>	<p>Specific policies and/or actions in the SCCAP to plan for, and manage, risks from interdependent infrastructure.</p> <p>National level planning for interdependency risks, applying lessons and approaches from regional programmes such as Climate Ready Clyde.</p> <p>Policy leads should encourage greater engagement from key Scottish infrastructure operators in the Infrastructure Operators Adaptation Forum (IOAF), particularly in sectors which have made limited progress on adaptation.</p>

**Table 6**  
Business recommendations

Priority area	Recommendations
<b>Extreme weather impacts on business</b>	<p>Integrate adaptation into plans for Scotland's recovery from Covid and the skills transition for Net Zero (see also the section on the Covid-19 Recovery in Scotland in Chapter 1)</p> <p>Fund work to design and populate indicators of Scottish businesses' preparedness and measure the impacts of extreme weather.</p>
<b>Supply chain disruptions</b>	<p>Ensure that adaptation is integrated into major upcoming policies in the next two years regarding risks to the supply of food, goods and vital services due to climate-related collapse of supply chains and distribution networks.</p> <p>Set out measures to ensure the resilience of the food supply chain, including to the risks of extreme weather in Scotland and internationally.</p>
<b>Water demand by industry</b>	<p>Establish a process for collecting and publishing data on abstraction by businesses.</p> <p>Collect data which can help confirm if reductions in water use are due to improved efficiency.</p> <p>Set out targets and supporting measures for reducing water use by business.</p>
<b>Business opportunities from climate change adaptation</b>	<p>Scottish Government should commission research assessing the opportunities from climate change to businesses and current barriers preventing businesses from realising these opportunities.</p> <p>The Blue Economy Action Plan should consider opportunities to the blue economy from climate change, including new fishing and tourism opportunities.</p>



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