



Adapting to Climate Change: Background Note for Elected Members

Purpose

This note summarises key facts about Scotland's changing climate and implications for Local Authorities. It provides background information for delegates of the Climate Change Adaptation Session for Elected Members taking place in Glasgow on 19 June 2019.

Background

Climate trends show that Scotland's climate is changing with more frequent severe weather events expected and this is projected to continue. Local Authorities stand at the frontline of reducing vulnerability in local communities to the various impacts of climate change. Building further capacity and increasing knowledge allows Local Authorities and their elected representatives to play their full part in responding to climate change.

As part of the EU Urban Agenda Partnership for Climate Adaptation, Glasgow City Council and COSLA have organised this session on climate adaptation for all of Scotland's 32 Councils and their elected members. It aims to provide an overview of activity at international, national and local level to create awareness of the importance of climate adaptation and to showcase practical methods.

Scotland's Changing Climate

Scotland's climate is already changing...

- Scotland's **10 warmest years on record have all been since 1997**. The average temperature in the last decade (2009-2018) was 0.67°C warmer than the 1961-1990 average.
- In the past few decades there has been an increase in rainfall over Scotland. The annual average rainfall in **the last decade (2009-2018) was 15% wetter than the 1961-1990 average, with winters 25% wetter**.
- Mean sea level around the UK has risen by approximately **1.4 mm/year from the start of the 20th century**, when corrected for land movement.

...and will continue to change in the decades ahead¹:

- Average temperatures will increase in all seasons (**H**), with the greatest increase in summer (**M**)
- What is considered a heatwave or extremely hot summer today will occur more frequently in future (**M**).
- Rainfall is projected to become more seasonal, with an increase in average winter and autumn rainfall (**M**). Average summer rainfall may decrease (**L**).
- Heavy rainfall events may occur more frequently in winter, spring, and autumn (**M**). An increase in summer heavy rainfall events is uncertain (**L**)

¹ Assessment of 'Overall Confidence' in scientific evidence for individual statements: High (H), Medium (M) and Low (L). Report: Future changes in precipitation and temperature, ClimateXChange 2017. Note that these were assessed prior to release of UKCP18.

- Snow is projected to be less frequent in coastal locations like Edinburgh with rising temperature (**H**), although by how much is complicated by increased winter precipitation (**L**).
- The growing season will continue to lengthen due to increasing temperatures in spring and autumn (**H**).
- Winter storms with extreme rainfall may become more frequent (**L**), although there is large uncertainty in models.
- Sea level will rise (**H**).

Impacts

Changes in climate have far reaching impacts including:

- ***Damage and reduced performance of buildings, assets and infrastructure***

Most existing buildings, assets and infrastructure are not designed to cope with the climate that we are now experiencing. Severe weather damage, overheating and damp conditions are challenges that need to be addressed through improved maintenance and retrofit. New buildings, assets and infrastructure should be designed, constructed and managed so that they are resilient to current climate impacts and able to adapt in future.

- ***Increased risk of flooding and change at our coast***

Planning, investment and land use decisions must take account of the impacts of current and future river, surface water and coastal flood risk. Coastal erosion and coastline retreat will also have serious implications in the years ahead. Locations that are currently at risk are likely to become increasingly vulnerable and new areas may become vulnerable in the years ahead.

- ***Impacts on the health and wellbeing of people***

Climate impacts will increasingly affect the mental and physical health and wellbeing of people and have the potential to widen existing health inequalities. For example, those living in poor quality housing may be most affected and least able to respond to damage to homes caused by severe weather events. People may also benefit from a warming climate which could provide more opportunities to be outdoors and enjoy a healthy and active lifestyle, while reducing mortality in winter.

- ***The health and value of our natural environment***

Our natural environment needs to be protected to enable it to adapt to long term changes in rainfall and temperature as well as damage from severe weather events and increases in pests and disease. A healthy natural environment is vital in order to sustain productive land and water supply and provide protection from flooding and overheating. Wetland areas, woodlands and sand dunes provide Scotland with the equivalent of £13 billion of protection from coastal flooding alone.

- ***Resilience and business continuity***

Increases in severe weather events, including heavy rainfall, flooding and summer heatwaves will put further pressure on emergency responders and those responsible for providing essential services across the public sector. Disruption to supply chains is also likely and could also affect timescales and costs of projects and services.

Response

Although a complex issue, responding to climate change has two main types of activity: mitigation and adaptation. While mitigation means action aimed generally at decreasing carbon emissions, the response to the challenges of a changing climate is 'adaptation'.

Adaptation is *'the adjustment in economic, social or natural systems in response to actual or expected climate change, to limit harmful consequences and exploit beneficial opportunities'* (Scottish Climate Change Adaptation Programme, The Scottish Government, 2014).

While the challenges we face from the impacts of climate change are significant, good adaptation will deliver both short-term benefits and progress towards long term outcomes. Adaptation takes place at all scales. From small incremental measures, like adjusting working practices for severe weather, to ensuring that new housing developments or infrastructure projects are fit for our future climate. What is clear is that with climate change set to increase, Scotland will benefit from both mitigation and adaptation activity delivered at the local level.

Legal and Policy Drivers

The **Climate Change (Scotland) Act 2009** requires the Scottish Government to implement a statutory Scottish Climate Change Adaptation Programme. The Public Bodies Climate Change Duties contained within the Act requires Local Authorities to act in the way best calculated to implement the statutory programme and report progress annually.

Other legislative drivers in Scotland include the **Flood Risk Management (Scotland) Act 2009** which requires that Flood Risk Management Plans take account of any impacts of climate change on the occurrence of floods. In addition to coastal protection work permitted under the **Coast Protection Act 1949**, the National Planning Framework, Scottish Planning Policy, the Land Use Strategy and the Scottish Forestry Strategy all act as drivers in climate change adaptation.

The **UK Climate Change Act 2008** put in place a policy framework to promote adaptation action in the UK, which includes the UK Climate Risk Assessment (a five-yearly assessment of the major risks and opportunities) to inform UK and Scottish practice. It also mandated reporting of climate risks and adaptation action for Infrastructure providers, through an Adaptation Reporting Power, and organisations such as Electricity Distribution Network Operators and Gas distribution organisations which operate in Scotland report on this every five years.

The **United Nations Paris Climate Agreement** recognises the role of local governments in addressing climate change and promotes local approaches to building resilience. It also defines a global goal on adaptation and encourages parties to engage in adaptation planning at all levels of government. There is also provision at EU level, such as the EU Adaptation Strategy and the EU Covenant of Mayors for Climate and Energy.

Role of Local Authorities

Scottish Local Authorities are involved in adaptation in a variety of ways. Some authorities will embed adaptation into existing policies and plans (e.g. land use planning), whilst some will develop standalone strategies, action plans or risk assessments on an individual or regional level. Others will take forward short-term or longer-term actions for local resilience, either in a specific service area or integrated across the administration. In any case, Local Authorities have an increasingly crucial role in delivering adaptation:

- **Building resilience** – it is essential that homes, buildings, infrastructure and services which operate in, or are delivered by Local Authorities are built and managed to adapt to the impacts of climate change. These assets are crucial to society and ensuring that they adapt will create a strong foundation for adaptation across all sectors and places.
- **Engaging communities** – good adaptation will enable progress towards healthier, fairer and more sustainable communities, and will ensure that vulnerable and disadvantaged communities are explicitly considered. Communities are concerned about climate impacts and should be supported to increase resilience.
- **Strategic planning** – Local Authorities have a responsibility to take a long-term view – with the needs of current and future generations in mind. Climate impacts should be considered in strategic decision-making, including spatial planning, capital and inward investment and regeneration.
- **Procurement** – Local Authorities have significant purchasing power and ability to influence products, services, supply chains and investment decisions. High standards of resilience and adaptation should be required in contracts and procurement. This would safeguard business continuity and future proof investments, as well as stimulating broader action within the private sector.

Role of Elected Members

Elected members may find it helpful to ask officers within their Local Authority the following questions to help gauge current adaptation activity:

- Are you experiencing severe weather conditions and impacts locally?
- Which service is leading adaptation?
- Are climate risks assessed? How are risks being managed?
- Are climate risks being factored into the business cases for long term investments – for example in development planning, built environment and infrastructure projects?
- Which communities might be particularly at risk from climate impacts?
- What business continuity plans are in place to safeguard service delivery and vulnerable residents during severe weather events?

Wider strategic issues affecting Local Authority adaptive capacity can include collaboration between departments, different levels of governance, knowledge and information gaps at the local level and resources for climate adaptation actions. Adaptation can involve long-term strategic planning and investment which can in turn require sustained political commitment.

More Information

For more information about adapting to climate change visit: www.adaptationscotland.org.uk or contact Anna Beswick, Adaptation Scotland Programme Manager: anna@sniffer.org.uk

For more information on Glasgow City Council's Climate Adaptation Policy, please contact: Sonia.Milne@Glasgow.gov.uk

For more information on EU and International Policy, please contact COSLA EU Policy Officer: Judith@cosla.gov.uk



Background to the EU Urban Agenda Climate Adaptation Partnership

The Urban Agenda for the EU was launched in May 2016 with the Pact of Amsterdam. It represents a new multi-level working method promoting cooperation between Member States, cities, the European Commission and other stakeholders to stimulate growth, liveability and innovation in the cities of Europe and to identify and successfully tackle social challenges.

The Urban Agenda has 14 partnerships, one of them focussed on Climate Adaptation. The one for Climate Adaptation was set up in 2017 as a multilevel and cross-sectoral cooperation instrument and delivery mechanism for delivering under this priority theme. The Partnership has developed an Action Plan to provide concrete actions for the design of future and of existing legislation, instruments and initiatives relating to the adaptation to climate change in urban areas in the EU.

One of the actions is “Political Training Academy on Climate Adaptation”. This action is led by the Council of European Municipalities and Regions (CEMR) in collaboration with partners: EUROCITIES and cities of Glasgow, Genova, Loulé and Potenza. COSLA is involved through CEMR, COSLA’s European umbrella body, where we are based together in the House of Municipalities in Brussels with our sister associations from other countries.

Training sessions for politicians are being organised by the Climate Adaptation Partnership to provide general information on what adaptation means for cities and local authorities and provide knowledge of the co-benefits of adaptation actions. There are 3 general academies and various local sessions, with today’s session in Glasgow being the first local session:

General Academies

- a. Oslo, 22nd May 2019 in the context of the Urban future forum
- b. Brussels, October, in the context of the European Week of Cities and Regions to be held between 7-10th October 2019 (date TBC)
- c. Innsbruck, Austria, 6-8th May 2020 in the context of the CEMR Congress

Local Sessions

- a. **Glasgow 19 June 2019**
- b. Genova, Nov 2019
- c. Potenza Nov 2019 TBC
- d. Loulé April 2020 – TBC
- e. Trondheim Spring 2020 – TBC