

Agenda Item	8
Report No	CCC/09/24

The Highland Council

Committee: Climate Change

Date: 23 May 2024

Report Title: Climate Change - Draft Scottish National Adaptation Plan 3: Consultation

Report By: Assistant Chief Executive, People

1. Purpose/Executive Summary

- 1.1 The purpose of this report is to update Members on The Highland Council's response to the draft Scottish National Adaptation Plan 3: consultation submitted to the Scottish Government on 24th April 2024.
- 1.2 Because the deadline for submission of the Council's response fell outside the Committee dates, a workshop was held on the 22nd April 2024 to allow Members of the Climate Change Committee to review and discuss the initial cross service officer collated response. This provided Members with the opportunity to shape the final submission in alignment with the Climate Change Committee's strategic position on Adaptation in the Highlands.
- 1.3 The consultation responses received from the general public and organisations will help shape the development of the final National Adaptation Plan, which is due for publication in Autumn 2024.

2. Recommendations

- 2.1 Members are asked to:
 - i. **Homologate** the Council's response to the draft Scottish National Adaptation Plan 3: consultation which closed on 24th April 2024.

3. Implications

- 3.1 **Resource** - While there are no resource implications arising directly from this report; the scale of change being proposed means it is likely that there will be significant resource implications in the future.
- 3.2 **Legal** - There are no legal implications arising from this report.
- 3.3 **Community (Equality, Poverty, Rural and Island)** - There are no direct implications arising from this report. However, the final Scottish National Adaptation Plan will include implications.

- 3.4 **Climate Change / Carbon Clever** - The consultation response will help shape the commitment to a Net Zero future and Just Transition putting Climate Change Adaptation at the centre of decision making.
- 3.5 **Risk** - There is no risk directly relating to this report.
- 3.6 **Health and Safety (risks arising from changes to plant, equipment, process, or people)** - There are no Health and Safety implications arising directly from this report.
- 3.7 **Gaelic** - There are no Gaelic implications arising from this report.

4. Overview of the Scottish National Adaptation Plan

- 4.1 The Climate Change (Scotland) Act 2009 requires a programme for climate change adaptation to be set out every 5 years. This must address risks identified in statutory UK Climate Change Risk Assessments. Public bodies and local authorities have a statutory duty to help deliver the national adaptation plan. The current adaptation plan is SCCAP 2. The new adaptation plan is referred to as SNAP 3 – Scottish National Adaptation Plan – in line with international naming conventions.
- 4.2 Climate adaptation is a complex picture of risks, opportunities and dependencies between policies. To break down this complexity, the draft Adaptation Plan is structured around five outcomes, setting out the case for adaptation action for:
1. Nature Connects
 2. Communities
 3. Public Services and Infrastructure
 4. Economy, Business and Industry
 5. International Action
- 4.3 Each outcome is grounded in a ‘big idea’ for how to deliver adaptation action differently in Scotland. For example, the Nature Connects outcome is centred on the view that, for climate adaptation, ensuring connectivity with and within the natural environment is the crucial factor for how communities and the natural environment can build climate resilience.
- 4.4 To ensure that ideas are translated into action, each outcome has its own set of objectives. These objectives will define how to deliver adaptation action. They also provide the structure around which the Adaptation Monitoring Framework is being built. To achieve each objective, the Plan will present a series of proposed policies. When taken as a whole, this structure will allow clear, transparent and accountable reporting on adaptation action.
- 4.5 The draft Scottish National Adaptation Plan 3: consultation was published on 31 January and closed on 24 April 2024. The final version of the Plan will be presented to Parliament in Autumn 2024.

5. Council Response

- 5.1 A workshop was held on 22 April 2024 to allow Members of the Climate Change Committee to review and discuss the initial collated cross service officer response and provided Members with the opportunity to shape the Council’s submission in alignment

with the Climate Change Committee's strategic position on Adaptation in the Highlands.

- 5.2 The response was revised to reflect the views expressed during the workshop and circulated to all Members for final review before the response was submitted.

6. Implications to the Council

- 6.1 The Scottish National Adaptation Plan 2024-29 will have far-reaching implications across numerous services within the Council in addressing the impacts of Climate Change and to meet our goal of achieving Net Zero by 2045.

Designation: Assistant Chief Executive, People

Date: 10 May 2024

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Background Papers:

[Introducing the five Outcomes - Climate change - national adaptation plan 2024 to 2029: consultation - gov.scot \(www.gov.scot\)](https://www.gov.scot/consultation/national-adaptation-plan-2024-to-2029)

[Draft Scottish National Adaptation Plan \(2024-2029\) \(www.gov.scot\)](https://www.gov.scot/publications/draft-national-adaptation-plan-2024-2029/pages/introduction.aspx)

Appendices:

Appendix 1 - Submitted response to the Scottish Government. Response ID: ANON-FA8X-YN26-6

Response ID ANON-FA8X-YN26-6

Submitted to Climate change - draft Scottish National Adaptation Plan 3: consultation
Submitted on 2024-04-24 15:05:38

Lived and local experience

1 What do you think the current effects of climate change are on people in Scotland?

Please give us your views:

The Highland Council's Climate Change Committee underscores the significant impact of climate change on communities across the Region. We have witnessed a consistent trend: the ten warmest years on record since 1997, resulting in noticeable shifts towards warmer, drier summers and milder wetter winters. These changes are not isolated incidents but indicators of broader consequences.

Scotland is grappling with an uptick in extreme weather events, ranging from wildfires to flooding, which disrupt lives, infrastructure, and ecosystems alike. These events often occur simultaneously, exacerbating their collective impact. The repercussions are not evenly distributed across society; rather, they magnify existing disparities, influenced by factors such as geographic location, socio economic status and vulnerability.

The consequences span a spectrum, encompassing property damage, threats to life, travel disruptions, and compromised air and water quality. Emergency services face heightened strain amid escalating crises, while both financial and human costs escalate. There is a notable impact on mental health and the ecological integrity of Scotland's environment faces increased strain.

This shouldn't be seen as a remote concern; it is a pressing reality necessitating immediate attention. Given the profound implications for Scotland's wellbeing and future. It is imperative that decisive measures are implemented promptly and decisively. The committee would urge all stakeholders to acknowledge the urgency of the situation and work collaboratively to safeguard Scotland's collective future.

2 What effects, if any, do you expect climate change will have on people in Scotland over the next five years?

Please give us your views:

Over the next five years, the Council anticipates the effects of climate change will have significant impact across the country. Increases in flood and wildfire risks, soil erosion. Coastal change and damage to buildings and infrastructure pose tangible threats to communities. Travel and power disruptions, along with pollution, will further disrupt daily life and economic activity. Businesses and the wider economy will feel the strain as they contend with these challenges.

The natural environment will bear the brunt, with an anticipated increase of pests and diseases disrupting biodiversity and ecological balances. This disruption extends to food supply chains, impacting individuals' health and well-being through increased temperatures and other environmental stressors. Loss of cultural heritage and identity due to the degradation of historical environments adds another layer of concern.

The required increase in energy demand as we transition to low carbon technologies exacerbate the challenges. Intervention in the accelerated advancements in technologies and infrastructure across the Region will need to be supported by both Scottish and UK Governments if we are to bolster resilience to climate change impacts. Initiatives such as Climate Action Coastlines, nature-based solutions, improved grid connections, and climate risk assessments offer the Region promising avenues for adaptation.

Nevertheless, the financial burden of climate change cannot be overlooked. Increased costs of fuel, goods, and services, coupled with more frequent loss events, will place increased financial strain on the situation and potentially deepen poverty. From the Council's perspective, these increased costs and disruptions will inevitably impact service delivery and Council operations, particularly in the Highlands, potentially exacerbating vulnerability within our communities.

Addressing these challenges requires proactive measures, collaboration, and strategic planning. By prioritising resilience-building efforts and investing in sustainable solutions, we can mitigate the adverse effects of climate change and safeguard the well-being of Scotland's residents.

3 What actions, if any, would you be willing and able to take to adapt to climate change?

Please give us your views:

The Highland Council's Net Zero Programme has ambitions to adapt to the impacts of climate change. Key adaptation areas of focus include:

- Development of a Climate Change Adaptation Strategy & Action Plan.
- Building resilience into our business continuity plans to account for climate change.
- Using non-maladaptive nature-based solutions to adaptation and setting aside land for biodiversity
- Developing a Climate Risk and Opportunity Assessment for use by ourselves, our communities, and our businesses.
- Embedding circular economy principles and practices into the Council's operations and procurement processes.
- Embedding climate change adaptation into decision-making processes
- Internal communications, engagement and training that increases preparedness and resilience of staff to the impacts of climate change.
- Increasing the efficiency of our fleet use that will increase resilience to disruptions caused by climate change impacts.
- Increased energy efficiency and renewable energy generation to increase energy security.
- Assess our progress and plan adaptation works using the Adaptation Scotland Benchmarking Tool.

- The Highland Council is a member of the Highlands and Islands Local Resilience Partnership and works together with local communities and partner organisations to develop local community resilience plans and raise awareness of adaptation and resilience actions through a network of corporate comms, the Resilience Team, Ward Manager Teams, and Highlife Highland Countryside Rangers.

The Highland Council recognises the urgency of adapting to climate change and is committed to taking decisive action. Our efforts extend beyond individual actions to encompass community-wide initiatives and strategic planning.

We will produce an Ecological Strategy that outlines our response to the ecological emergency, closely intertwined with the climate emergency. This strategy will prioritise projects and initiatives aimed at nature restoration, expanding green spaces, and connecting vital habitats to enhance biodiversity and bio-abundance. Strengthening ecosystems is paramount, as they offer protection from the impacts of climate change, including flooding, wildfires, and the urban heat island effect.

We will actively engage with communities and partner organisations like Highland Adapts to facilitate collaboration and enhance resilience. By working together, we can develop strategic plans and adaptation measures that address the unique challenges posed by climate change.

Political urgency is essential in driving these efforts forward. The Highland Council urges stakeholders at all levels to prioritise climate adaptation, develop strategic pathways to foster investment in nature-based solutions, and support community-led initiatives. Working together to build a more resilient future for our communities and mitigate the impacts of climate change.

4 What factor(s), if any, would prevent you from taking action to adapt to climate change and become more climate-resilient?

Please give us your views:

The Highland Council recognises the urgency of addressing climate change and building resilience in our communities. However, several factors hinder our ability to take decisive action, necessitating immediate attention and intervention.

- Budgetary constraints pose a significant challenge, limiting our capacity to implement adaptation measures effectively and meet Scotland's net zero and adaptation targets by 2045. Additionally, the scarcity of skilled workers in rural and island council areas exacerbates the issue, impeding critical adaptation work.

- Public perception, lack of long-term planning and funding, and bureaucratic hurdles present further barriers, hindering swift responses to climate-related challenges and the implementation of renewable energy projects.

- Depopulation in rural areas diminishes community resilience, while lack of community access to the national grid perpetuates reliance on fossil fuels, hindering progress towards sustainability.

- Engagement and awareness are essential, and empowering communities through enhanced engagement can facilitate mutually beneficial solutions.

- Peatland restoration is crucial for climate adaptation, but barriers such as skills shortages and bureaucratic obstacles impede progress. Designating the Highlands as a special region for peatland restoration could unlock additional funding and support from the Scottish Government.

Addressing these challenges requires urgent action to overcome budgetary limitations, enhance community engagement, and overcome bureaucratic barriers. The Council is committed to collaborating with stakeholders, advocating for necessary changes, and prioritising adaptation efforts to ensure a resilient future for all.

5 What action(s) do you think the Scottish Government should prioritise in order to build greater resilience to the impacts of climate change?

Please give us your views :

The Committee urges the Scottish Government to prioritise decisive actions; enhancing resilience to the impacts of climate change. Urgency is paramount, and immediate steps must be taken to safeguard our communities and environment against the escalating threats posed by climate change.

Investment in critical infrastructure is essential. We would call for the for prioritisation for development and resilience-building in transport, communications, energy, and water infrastructure. Furthermore, continued investments in flood prevention and nature-based solutions, such as reforestation, peatland restoration, and coastal barriers, are imperative to mitigate the risks posed by extreme weather events.

Grant opportunities must be expanded to enable public bodies to develop solutions tailored to vulnerable areas. Additionally, enhancing public understanding of the impacts of climate change and the necessity for adaptation is crucial. Robust communication efforts are needed to strengthen public resilience and support collective action.

Setting statutory targets for increasing adaptive capacity and providing adequate funding to achieve these targets is imperative. The Scottish Government must demonstrate strong leadership by committing to tangible goals and allocating sufficient resources to achieve them.

Addressing depopulation in rural and island communities is paramount. The Scottish Government should implement measures to revitalise these areas, ensuring that all communities have the resources and support needed to adapt to climate change effectively.

Building on research provided by initiatives like Dynamic Coast, the Scottish Government must invest in coastal adaptation at a national scale. Local authorities, communities, and businesses require significant support from the national government to manage the changing coastline effectively. This support should encompass data analysis, project funding, guidance, and assistance with insurance and investment in coastal habitat restoration and protection.

Additionally, proactive lobbying efforts are necessary. The Scottish Government should advocate on behalf of the Highlands as a special region deserving of additional investment and prioritise climate change on the national agenda. Lobbying efforts should also target Ofgem to segregate energy supplier infrastructure, ensuring that the cost of energy in the Highlands reflects renewable energy generation and facilitating increased grid connection and capacity.

Finally, the Scottish Government must further develop and leverage the potential of renewable energy generation. Wind, tidal, wave, solar, geothermal, and hydro energy sources offer significant opportunities for sustainable energy production and must be prioritised in the national energy strategy.

Outcome one: Nature connects

6 The draft Adaptation Plan sets out actions which will be taken to protect and restore nature. Which of the following actions proposed around protecting and restoring nature should the Scottish Government prioritise for a better adapted Scotland?

More trees and green spaces in built-up places for flood resilience and cooling, More joined up natural habitats ("nature networks"), Managing pests and diseases which will be more prevalent with climate change, Restoring forests and peatland, Reinforcing natural coastal barriers such as dunes, Other

If you selected 'other', please share detail below:

More blue infrastructure such as ponds, swales, wetlands etc. particularly in built up areas and areas at risk of flooding. More effective emergency response planning to protect nature from the increase in natural disasters such as flooding, wildfires, etc. Also improvement of nature at our coasts such as seagrass and seaweed.

7 When you consider your local natural space e.g. park, canal, woodland or beach, what would you like to see improved in terms of blue and green space in your local area?

Please give us your views:

The Climate Change Committee recognises the urgent need to improve blue and green spaces in our local areas. These spaces are vital for enhancing biodiversity, protecting ecology, and promoting positive health and well-being benefits for our communities. Urgent action is required to address several key areas:

- Prioritise measures to improve and protect biodiversity and ecology. This includes implementing a ban on pesticides and herbicides to safeguard our natural habitats and wildlife.
- Focus on expanding and connecting our nature networks to create cohesive ecosystems that support a diverse range of species and habitats. Strengthening flood prevention measures is also crucial to protect these valuable natural spaces from the impacts of climate change.
- Ensure that these areas are safe and accessible to all members of our community, allowing everyone to benefit from the positive health and well-being outcomes associated with spending time in nature.
- Increased focus on improving our coasts to combat the decline of dune systems and enhance marine environments. This includes enhancing biodiversity through the restoration of seagrass, seaweed, and other marine habitats. These measures can significantly contribute to blue carbon storage, biodiversity enhancement, and climate resilience, particularly given the extensive coastline in the Highland region.
- Legislate wildfire prevention measures, including the creation of firebreaks where possible, to build resilience against the expected increase in the incidence and severity of wildfires.

Addressing these issues requires urgent and coordinated action at the local and regional levels. Working collaboratively with stakeholders to prioritise improvements and ensure the continued health and vitality of our local blue and green spaces.

Outcome two: Communities

8 For Scotland to adapt to the impacts of climate change, lots of different groups, such as individuals, communities, businesses and public bodies, will need to work together and support each other. How could others support you (or your organisation) to adapt to climate change over the next five years?

Please give us your views:

To effectively adapt to the impacts of climate change over the next five years, collaboration and support from various groups are essential. Here's how different stakeholders can contribute to supporting The Highland Council and its adaptation efforts:

- Central and Local Government: Central Government should provide adequate guidance and funding to enable adaptation efforts. The Council urges Central Governments to engage with them and provide support to ensure tailored adaptation actions benefitting communities and businesses are delivered effectively.
- Other Public Bodies: Public bodies such as NHS Highland, enterprise agencies, and environmental organisations play a crucial role in coordinating adaptation actions. Collaboration with these bodies, through initiatives like the Highland Adapts Partnership, emphasises the importance of a unified approach to climate adaptation.

- **Small and Large Businesses:** Businesses have valuable resources, knowledge, and innovation potential to contribute to adaptation efforts. Collaborating with organisations like the CBI, TUC, Federation of Small Businesses, and private landowners can maximize positive outcomes in terms of knowledge sharing, skills, and resources.

- **Third Sector Organisations:** Third sector organisations play a vital role in implementing nature restoration projects and seeking blended finance options for mitigation and adaptation efforts.

- **Communities:** Engagement with community councils and community groups is crucial for developing place-based solutions that meet the unique needs of local communities. Collaborating with universities on research and knowledge sharing ensures informed decision-making in Council operations and projects.

In summary, a collaborative approach involving all stakeholders is imperative for effective climate adaptation. The Council would urge groups to work together and support each other to ensure a resilient future for Highland communities amidst the challenges of climate change. The time for action is now, and collective efforts are needed to confront this urgent issue.

9 In what way(s) could the plan help different groups across Scotland and/or its regions to collaborate on climate adaptation?

Please give us your views:

To enhance collaboration on climate adaptation across different groups in Scotland, the plan could implement several strategies:

- **Networking Forums:** Establish regional networking forums where groups and organisations can collaborate on adaptation measures within their respective areas. These forums would provide a platform for sharing best practices, lessons learned, and resources. By fostering communication and collaboration, these forums can facilitate coordinated action and avoid duplication of efforts.

- **Funding Opportunities:** Provide funding opportunities specifically aimed at supporting cross-collaboration work on climate adaptation. This funding could support joint projects, research initiatives, and capacity-building efforts among different groups. Financial support encourages collaboration and enables the pooling of resources for more effective adaptation strategies.

- **Provision of Advice and Resources:** Offer guidance, advice, and resources to support groups in their adaptation efforts. This could include toolkits, training programmes, and access to expert advice on climate-related issues. By providing the necessary support, the plan empowers groups to take meaningful action and navigate the complexities of climate adaptation.

- **Signposting and Activity Mapping:** Develop a system for signposting relevant information and mapping adaptation activities across different regions. This would help groups identify existing initiatives, potential partners, and areas where collaboration is needed. By creating a clear roadmap, the plan facilitates strategic decision-making and promotes efficient allocation of resources.

- **Networking Opportunities:** Organise networking events, workshops, and conferences to facilitate interactions and collaboration among different groups. These opportunities for face-to-face engagement allow for the exchange of ideas, the formation of partnerships, and the cultivation of a sense of shared purpose in tackling climate change.

- **Facilitate Information Sharing Between Public Bodies:** The plan could facilitate the sharing of information and resources between central and local government agencies, NHS boards, enterprise agencies, and other public bodies. By promoting collaboration and knowledge exchange, public bodies can leverage each other's expertise and resources to develop more comprehensive and effective adaptation strategies.

Overall, by implementing these strategies, the plan can foster a culture of collaboration, coordination, and shared responsibility among different groups in Scotland. This approach ensures that resources are maximized, efforts are aligned, and collective action is taken to address the urgent challenges of climate change.

Outcome three: Public services and infrastructure

10 Advice from the Climate Change Committee (the Scottish Government's independent advisors on Climate) is to adapt to 2°C of warming and assess the risk for 4°C. To what extent do you agree with this advice?

Strongly Agree

Please share detail on your answer:

The Committee strongly agrees with the advice from the Climate Change Committee. Planning ahead for the worst-case scenario is essential to safeguard the future for all. Currently, the planet is already experiencing a global average temperature increase of around 1.2 degrees, with some years exceeding 1.5 degrees warming. In the current climate emissions will continue to rise, making scenarios of warming above 2 degrees increasingly likely and necessitating adaptation measures.

While starting with adaptation to 2 degrees of warming is crucial, preparing for a 4-degree rise should also be underway, despite recognising the monumental challenge it presents. It is imperative that comprehensive information is provided on the outlook for the Highland region under each warming scenario. This will enable effective planning and implementation of adaptation measures tailored to the specific challenges and risks posed by different degrees of warming.

By strongly agreeing with the advice to adapt to 2 degrees emphasises the urgency of proactive and decisive action to address the escalating impacts of

climate change.

11 Would further guidance on future climate scenario(s) be useful when making plans and investment decisions?

Yes

If yes, what sort of information or advice would be useful for you or your organisation when considering future climate scenarios in long-term planning or investments?:

The Council strongly believes that further guidance on future climate scenarios is imperative for making informed plans and investment decisions. Access to comprehensive information and modelling is essential, especially for areas vulnerable to being cut off due to climate change impacts. Mapping and modelling of climate risks and impacts, such as urban heat islands, flooding, coastal erosion, and wildfire hotspots, would provide invaluable insights into the future effects of climate change specific to our region.

Targeting adaptation actions to vulnerable areas, we can achieve greater effectiveness, efficiency, and cost savings. Practical datasets that outline climate risks under different emissions scenarios are essential for local authorities like The Highland Council. Dynamic Coast serves as a valuable example, but future funding is needed to keep it updated and to create comparable datasets and visualisations through modelling.

Moreover, local authorities often lack the in-house expertise to interpret and act upon such data. Therefore, training and guidance on translating data into action would be immensely beneficial. Workshops for staff in flood and planning teams could help bridge this gap, ensuring that we can effectively respond to the challenges of a changing climate.

12 Would an assessment of "cascading" risks from weather-related disruptions to infrastructure help you or your organisation to adapt?

Yes

Please give us your views:

The Committee strongly believes that an assessment of "cascading" risks from weather-related disruptions to infrastructure would be invaluable for our adaptation efforts. Such an assessment would aid in emergency planning, staffing, and resource allocation for responding to disruptions effectively. Additionally, it would allow us to learn from the best practices developed by other nations and organisations facing similar impacts of climate change, thereby enabling us to target specific adaptation actions where they are most needed.

The installation of secondary power supplies could enhance our resilience to weather-related disruptions, ensuring continuity of vital services during emergencies. Collaboration with the Scottish Government on "war game" style workshops would further prepare us for such disruptions. In these workshops, relevant officers and elected members could walk through scenarios involving cascading emergencies, enabling us to better understand and address the interconnected challenges posed by extreme weather events.

Making the outcomes of these workshops or guidance public would also foster transparency and community awareness, encouraging collective action and resilience-building efforts at all levels. Therefore, an assessment of cascading risks and collaborative preparation initiatives with the Scottish Government are imperative for enhancing our readiness and resilience in the face of climate change-induced disruptions.

Outcome four: Economy, business and industry

13 What, if any, are the barriers to businesses accessing advice and support on climate risks?

Please give us your views:

The barriers to businesses accessing advice and support on climate risks are multifaceted. Financial constraints often limit their ability to allocate resources, while staffing limitations hinder their capacity to address climate-related challenges. Moreover, the scarcity of specialist knowledge exacerbates the issue, as high demand renders it less accessible.

A significant barrier lies in the lack of awareness among businesses regarding how they will be affected by climate risks, leading to underestimation of the importance of seeking relevant guidance. Denial of climate change further compounds the challenge, alongside competing priorities like financial crises and labour shortages.

Additionally, the lack of clarity on where to access reliable information on climate impacts hinders businesses' ability to make informed decisions. To overcome these barriers, concerted efforts are needed to enhance awareness, provide tailored guidance, and allocate resources. Collaboration between sectors and targeted initiatives to disseminate information are essential for navigating the challenges posed by climate change.

14 How should farming, fishing and forestry businesses be supported to adapt to climate change?

Please give us your views:

Farming, fishing, and forestry businesses play a crucial role in climate adaptation and should be supported accordingly. They should be actively involved in the development of new climate adaptation policies and initiatives from the ground level. Incentives should be provided to encourage adaptation actions such as increasing tree and hedgerow coverage on farmland, implementing flood prevention and drainage initiatives, and investing in riparian planting.

To facilitate these efforts, green finance options should be made readily available to these businesses. The Scottish Government can support initiatives

that connect private finance with community and business projects offering climate adaptation benefits. Additionally, the government should provide support and enable the adoption of new and diverse practices that enhance resilience, strengthen infrastructure, and promote renewable energy technologies.

It is fundamentally important that these businesses are equipped with knowledge about how climate change will impact them and offer cost-effective solutions to mitigate these impacts. Furthermore, efforts should be made to strengthen local supply chains and reduce reliance on overseas supplies, enhancing resilience and sustainability within these sectors. By providing comprehensive support and enabling innovative practices, farming, fishing, and forestry businesses can effectively adapt to the challenges posed by climate change.

15 How do you anticipate disruption to domestic and/or international supply chains caused by climate change will affect Scottish business, industry and consumers?

Please give us your views:

The anticipated disruptions to domestic and international supply chains caused by climate change will have profound effects on Scottish businesses, industries, and consumers. As crop failures increase and energy prices for food production rise, we can expect prices to be driven up, triggering panic-buying and hoarding of goods and fuel. This, in turn, will reduce the availability of products and resources, heighten the risk of business failures, and potentially lead to an economic recession.

Moreover, the quality and quantity of goods and resources will be compromised due to climate impacts affecting both local and international supply chains. For example, overheating of grain, overripe produce, and reduced yields will affect business sales, product quality, and reputations. Disruptions in international supply chains will further strain local suppliers, exacerbating our reliance on alternative sources of produce.

As a result, consumers may face increased prices for affected products, potentially leading to greater deprivation and even famine, especially among the most vulnerable populations. Urgent action is needed to address these challenges, including investing in resilience-building measures, diversifying supply chains, and promoting sustainable practices to mitigate the impacts of climate change on businesses, industries, and consumers in Scotland.

16 What, if any, should the role of government be in supporting more resilient supply chains?

Please give us your views:

The role of government in supporting more resilient supply chains is paramount and requires urgent action to safeguard Scotland's natural resources and technological innovations. This includes recognising and protecting vital resources such as water management and drainage systems, including innovative solutions like water desalination. Additionally, measures must be taken to safeguard our woodland and peatland resources, integrating their protection into infrastructure and trade policies.

Government intervention should also involve fostering partnerships with private landowners to secure access to fresh water sources, thereby enhancing the water supply to local communities. Support for research and projects that explore and implement new farming and forestry practices to improve resilience in a changing climate is essential.

Furthermore, the climate resilience of supply chain infrastructure must be considered, with measures taken to avoid building in areas prone to flooding or wildfires. Investments in agricultural or trade infrastructure, such as ports, should prioritise suitability for trade in a changed climate.

Encouraging local agriculture, production, and community-based circular economy initiatives can reduce reliance on international supply chains. Providing funding and support to local businesses to increase capacity and build resilience is crucial to cope with international supply chain disruptions and potential influxes of climate refugees.

Overall, the government's role should prioritise proactive measures to strengthen Scotland's supply chains, ensuring resilience in the face of climate change impacts and global challenges.

17 What, if any, do you think are the business and innovation opportunities arising from climate change in Scotland?

Please give us your views:

Climate change in Scotland presents a range of business and innovation opportunities that demand immediate attention and strategic planning.

A significant opportunity lies in adapting to changing markets and lifestyles. Businesses can develop new products and services tailored to meet evolving consumer needs and preferences in a warmer climate. This includes sectors that benefit from an extended tourist season and warmer, drier summers. Industries such as engineering, construction, design, architecture, and planning have the potential to lead in developing innovative solutions for more resilient buildings and infrastructure. These innovations can bolster Scotland's capacity to withstand climate-related challenges and foster a competitive edge in the global market.

Additionally, a warming climate may improve growing conditions, leading to increased productivity in agriculture and forestry. This creates opportunities for innovative farming practices like hydroponics, permaculture, and vertical farming.

Local markets offer further opportunities for businesses to adopt marketing strategies focused on regional distinctiveness or reduced product miles, supporting sustainable and resilient supply chains.

Data analysis plays a crucial role in climate adaptation, providing opportunities for businesses specialising in managing, storing, and interpreting climate data. Technologies such as artificial intelligence and computational modelling can be leveraged to derive insights and inform decision-making processes.

Embracing these business and innovation opportunities arising from climate change in Scotland is vital for driving economic growth, enhancing resilience, and ensuring a sustainable future for all.

18 What, if any, support would be required to encourage businesses in Scotland to take advantage of innovation opportunities arising from climate change?

Please give us your views:

Encouraging businesses in Scotland to capitalise on innovation opportunities arising from climate change requires comprehensive support and strategic investment. Urgent action is needed to provide the necessary resources and incentives to foster a culture of innovation and adaptation.

- Expanding business development and employability services is crucial to cultivate new talent and innovation. This includes increasing apprenticeship opportunities and nurturing emerging entrepreneurs.
- Grant funding opportunities play a pivotal role in stimulating new innovative business start-ups and diversification of existing businesses. Flexibility in investments and adaptation funding is essential to reduce barriers to funding options and encourage innovation.
- Facilitating the development of peer-to-peer networks can foster knowledge sharing and collaboration among businesses, creating a supportive ecosystem for innovation.
- Increased funding opportunities from both National Governments and organisations like the European Union are necessary to support businesses in implementing innovative solutions and adapting to the challenges of climate change.

Tailored support, advice, and funding are particularly crucial for small agricultural businesses such as crofts, small farms, and smallholdings to adapt and diversify. Organisations like the NFU or Scottish Crofting Federation can play a vital role in delivering this support and facilitating the adoption of new agricultural practices and innovations.

By providing comprehensive support and incentives, policymakers can empower businesses in Scotland to seize innovation opportunities arising from climate change, driving economic growth and resilience in the face of environmental challenges.

Outcome five: International action

19 How could the Scottish Government support communities impacted by climate change across the world?

Please give us your views:

Facilitating more international networking opportunities between community groups and support organisations, such as regional Climate Hubs, is essential for sharing lessons learned and best practices. These opportunities can include exchange visits and knowledge sharing, empowering communities impacted by climate change across the world.

Furthermore, reducing our emissions will have a direct impact on mitigating global climate change, thereby lessening the severity of its impacts on vulnerable communities worldwide. Advocating for more ambitious climate targets on the international stage is crucial to protecting these communities and ensuring a sustainable future for all.

Scotland is uniquely positioned to champion adaptation and renewable energy innovations globally. By promoting these initiatives through our higher education system, we can inspire change and make a meaningful difference around the world. Positioning Scotland as a centre for excellence in adaptation and renewable energy and leading by example will further enhance our impact on a global scale.

Additionally, the UK as a whole can contribute to climate resilience through international development, particularly through Official Development Assistance. By investing in projects that build climate resilience in vulnerable communities, we can support sustainable development and empower those most affected by climate change.

20 Scotland is known for its excellence in climate change research. Are there international adaptation focussed research opportunities which Scottish-based academic work should focus on?

Please give us your views:

There are a number of useful adaptation focused research opportunities which should be focused on, particularly useful are the following –

- The Climate Resilience Toolkit developed by USGov - <https://toolkit.climate.gov/>
- The Climate Adaptation Knowledge Portal of the Netherlands - <https://klimaadaptatienederland.nl/en>
- Climate Adapt Europa - <https://climate-adapt.eea.europa.eu/>
- The EU's Adaptation Preparedness Scoreboard - https://climate.ec.europa.eu/document/download/da9b64bf-296b-41a2-8596-442759d6bd2e_en?filename=country_fiche_gb_en.pdf
- The RESIST project (<https://resist-project.eu/>) tests adaptation solutions to key climate challenges, including a focus on adaptation. This project is implemented across 12 regions of Europe and investigates flooding, drought, heatwaves, wildfires, and soil erosion. The UK is not yet a part of this project.
- Sustainable Agritourism Research with the University of California - <https://sarep.ucdavis.edu/sustainable-ag/agritourism>

Enabling factors

21 What do you see as the main barrier to private investment for adaptation action?

Please give us your views:

Investment in climate adaptation faces numerous barriers that require urgent attention and strategic actions to overcome. One of the primary challenges is the perception that climate adaptation is primarily a charitable endeavour rather than a financially viable investment opportunity. This perception has limited the involvement of private investors who seek clear and predictable returns on investment.

Moreover, within the public sector, there is a significant skills gap in green finance expertise. While green finance principles have existed for some time, local government often lacks the necessary training and skills to navigate these financing models effectively. Additional funding for skills development and investment in apprenticeships is essential to address this gap and build capacity within local government institutions.

In the private sector, there is a lack of awareness and understanding among investors regarding the benefits of adaptation action. Climate adaptation is often viewed as a long-term investment with uncertain returns, further deterring private investment.

Institutional barriers also hinder private investment in adaptation action. These barriers include political instability and a lack of commitment, as well as inefficient policies and strategies. Rising interest rates have exacerbated the situation, discouraging private investment further. Addressing these institutional barriers and providing a supportive policy environment is essential to unlocking private investment for climate adaptation.

To address these barriers effectively, urgent action is needed to provide education and awareness-raising initiatives for investors, improve skills and capacity within the public sector, and create a supportive policy environment that incentivises private investment in climate adaptation. Additionally, lowering interest rates at the national level can help stimulate private investment and accelerate climate adaptation efforts.

22 How can the Scottish Government support or incentivise more private investment in adaptation action?

Please give us your views:

Scottish and UK Governments must incentivise more private investment in adaptation action. Take decisive and urgent steps to engage with private investors, highlighting the critical need for and significant benefits of investing in adaptation and mitigation measures. This engagement can foster a greater understanding of the value proposition of climate adaptation investments and encourage private investors to allocate resources towards these initiatives.

The Government should explore regional economic and adaptation initiatives aimed at delivering area-based solutions tailored to the specific needs and challenges of different regions. Aligning adaptation efforts with regional economic development goals, can create opportunities for private investment that contribute to both climate resilience and economic growth.

Policy changes are also essential to remove barriers and facilitate private investment in adaptation action. For instance, revising policies that currently restrict private finance investment in public services, such as the limitation on Scottish National Bank's investment in local authorities, can unlock greater investment opportunities and support the scaling up of adaptation projects.

The Government can incentivise private investment by allowing local authorities to leverage greater developer contributions to integrate resilience and adaptation measures into local communities affected by new developments. This approach ensures that new infrastructure projects are built with climate resilience in mind, contributing to long-term sustainability.

Expand the scope of community wealth building related to renewable energy projects to encompass wider areas, extending the benefits to a broader range of communities, can encourage private investors to support renewable energy projects while contributing to adaptation efforts across the region.

The Government should provide support and guidance to local authorities interested in exploring green finance options, building on successful initiatives like the Green Growth Accelerator. This support can help local authorities navigate the complexities of green finance and access funding opportunities to implement adaptation projects effectively.

By engaging with private investors, implementing policy changes, and providing support to local authorities, Scottish Government can create an enabling environment that incentivises and facilitates increased private investment in climate adaptation action, driving progress towards a more resilient and sustainable future for Scotland.

23 The proposed approach to monitoring and evaluating progress of the Adaptation Plan is set out below. Do you agree with the proposed approach to monitoring adaptation?

Agree

24 Do you have suggestions of data or indicators that could be used to track adaptation outcomes in Scotland?

Please give us your views:

To effectively track adaptation outcomes in Scotland, it is crucial to establish robust data and indicators that capture the progress and impact of adaptation measures. Here are some suggestions:

- Effectiveness: Measure the effectiveness of adaptation actions in reducing vulnerability and enhancing resilience to climate change impacts. This could

involve assessing changes in the frequency and severity of climate-related incidents, such as extreme weather events, before and after the implementation of adaptation measures.

- **Equity:** Evaluate the distribution of adaptation benefits and risks across different social groups and geographical areas to ensure that adaptation efforts are equitable and inclusive. This could include assessing the accessibility of adaptation measures to vulnerable communities and marginalised groups.
- **Accountability:** Monitor the implementation of adaptation actions against set targets and timelines to ensure accountability and transparency. This could involve tracking progress towards achieving specific adaptation objectives outlined in the draft Plan.
- **Outcomes:** Assess the outcomes of adaptation interventions in terms of their contribution to long-term resilience and sustainability. This could include measuring changes in ecosystem health, infrastructure resilience, and community well-being over time.
- **Sharing of Learning:** Promote knowledge sharing and learning among stakeholders by documenting and disseminating best practices, lessons learned, and case studies of successful adaptation initiatives. This could involve establishing platforms for sharing experiences and insights, such as workshops, forums, and online resources.

Baseline measurements of weather-related incidents prior to adaptation measures and ongoing recording of incidents afterward can provide valuable data on the effectiveness of adaptation efforts. Tracking the extent of adaptation measures implemented and the populations, land use, or areas of land protected as a result can offer insights into the spatial distribution and coverage of adaptation actions. Interactive maps, possibly using Geographic Information Systems (GIS), could be utilised to visualise this information in a user-friendly format.

Furthermore, assessing habitat intactness and connectivity, as well as the recovery of certain species in target areas (e.g., oysters in nature-based flood defences), can serve as indicators of ecosystem resilience and adaptation success.

By utilising these data and indicators, policymakers and stakeholders can better understand the effectiveness of adaptation actions, identify areas for improvement, and make informed decisions to enhance Scotland's resilience to climate change impacts.

Impact assessments

25 What, if any, impacts do you think this Adaptation Plan will have on groups/individuals who share protected characteristics?

Please give us your views:

The Adaptation Plan holds potential for positive impacts on all groups and individuals who share protected characteristics. It's designed to ensure that our communities are resilient to the current and future effects of climate change. As long as a just transition is embedded throughout the Plan, there should be minimal to no negative impact.

However, it's essential to address potential challenges to ensure inclusivity and equity. One concern is the lack of strategies in the Plan to ensure that new or retrofit adapted properties are designed with adequate accessibility measures. Without these measures, disabled people may face barriers to accessing and benefiting from adaptation measures.

Additionally, it's crucial to consider the participation of women and ethnic minorities in the climate-smart workforce. The Plan should include strategies to remove barriers and promote inclusivity in climate-related employment opportunities. Without such strategies, there's a risk of perpetuating existing disparities and inequalities.

To maximise the positive impacts of the Adaptation Plan and mitigate potential negative effects, it's imperative to prioritise inclusivity, accessibility, and equity in all aspects of its implementation. This will ensure that all members of our communities can fully participate in and benefit from climate adaptation efforts.

26 In respect to protected characteristics, what, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts of the draft Adaptation Plan?

Please give us your views:

To ensure that accessibility requirements are accounted for in the design and retrofit of adapted properties planning regulations and building standards are strictly adhered to, to ensure that legal standards are met. This should mitigate any negative impacts to this protected characteristic.

It is important to ensure that there are no barriers to women and ethnic minorities entering the climate-smart workforce and more engagement and research needs to be done to address this and increase diversity throughout.

27 What, if any, impacts do you think the proposed Adaptation Plan will have on inequality caused by socio-economic disadvantage?

Please give us your views:

In the most part the Plan has positive impacts on socio-economic disadvantage throughout Scotland as it ensures that our communities are resilient to the impacts of climate change and thereby lessening the financial impact felt.

It is important to note that the Plan does not account for the considerable impacts of depopulation being felt by the more remote areas of Scotland, particularly here in the Highlands. An NHS Highland report estimates that the working age population of Caithness alone will fall by 15% by the year 2030 and there will be 21% less 0-15-year-olds by that date. This will negatively impact on the ability to build climate resilience within the communities affected

by depopulation and, with the ever-increasing competition for the climate-smart workforce across Scotland, it is highly likely that areas like Caithness will struggle to build adaptive capacity thereby further negatively impacting inequalities caused by socio-economic disadvantage.

28 In respect to inequality caused by socio-economic disadvantage, what, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts of the draft Adaptation Plan?

Please give us your views:

The Plan needs to recognise the barrier rural depopulation presents to effective resilience and adaptive capacity building leading to increased socio-economic disadvantage in the affected areas. Measures need to be put in place to ensure that these areas receive greater support and consider expanding the protected status granted to island communities to mainland rural communities that are heavily impacted by depopulation.

It is also imperative that rural communities are not disadvantaged by increased competition for resources and the climate-smart workforce that is likely to occur as more and more adaptation and resilience projects are put in place across the nation.

29 What, if any, impact do you think the Adaptation Plan will have on children's rights and wellbeing?

Please share your views:

It is likely that there will be overwhelmingly positive impacts to children's rights and wellbeing from the Plan. Children in particular are most at risk of the psychological effects of climate anxiety given their greater understanding of the implications of climate change and how it can impact their future health, wellbeing, and livelihoods. As the Plan addresses ways to adapt and build resilience to climate change it is likely to go some way to alleviating these anxieties.

It is important to ensure that particular care and attention is given to ensuring effective measures are rolled out in areas of deprivation, areas affected by depopulation and island and rural communities. These areas are more vulnerable to the effects of climate change and as such children's rights and wellbeing are at greater risk of being negatively impacted should ineffective or no measures be enacted.

The Adaptation Plan should engage with young people to involve them in some of the solutions and adaptation measures to climate change. The Plan should also look far enough into the future that it has a clear focus on the lifespan of our youngest citizens. Planning for adaptation until the end of the century should be the bare minimum.

30 What, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts of the draft Adaptation Plan on children's rights and wellbeing?

Please give us your views:

It is important to ensure that priority is given to addressing adaptive capacity and resilience building in vulnerable, deprived, depopulated, island, and rural communities that do not have the resources, skilled labour and political capital that larger more developed areas have access to. This should ensure that the rights and wellbeing of the children in these areas are not adversely affected.

31 What, if any, impacts do you think the Adaptation Plan will have on Island communities?

Please give us your views:

The Adaptation Plan is likely to have significant impacts on island communities due to their unique geography and connectivity, which make them more vulnerable to the effects of climate change. These communities face distinct challenges and barriers to adaptation and resilience that differ from those on the mainland. As a result, the costs and timescales for effective adaptation actions in these areas will be greater, necessitating additional funding and support beyond what is provided for less remote regions. Without this support, there is a risk that island communities may suffer negative consequences.

Island communities are particularly susceptible to certain climate change impacts, such as sea level rise, coastal erosion, and storm impacts. The Adaptation Plan should offer clear guidance and support to local communities, helping them prepare for a changing climate and altered relationships with the sea. For example, the Isle of Arran has low-lying areas of community land and housing that will need to adapt to rising sea levels. While investment in coastal defences is essential, it may not be sufficient to protect all vulnerable areas. Therefore, a comprehensive coastal change plan is necessary, providing clear guidance on managed retreat, abandonment, and adaptation strategies to safeguard island communities effectively.

32 What, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts of the draft Adaptation Plan on Island communities?

Please give us your views:

To strengthen the positive impacts and mitigate any negative consequences of the Adaptation Plan on island communities, several measures should be considered as urgent priorities.

- The Plan must fully acknowledge and address the unique risks inherent in these areas. This involves providing targeted mitigations and interventions specifically tailored to the challenges faced by island and remote mainland communities. Increased funding and support should be allocated to these regions to enable them to effectively counter the impacts of climate change.

- Sustainable islands and remote rural communities should be central to all decision-making processes related to building adaptive capacity and resilience. Their voices and perspectives must be actively included in the development and implementation of the Plan to ensure that it meets the specific

needs of these communities.

- Coastal communities, in particular, should be actively engaged in the planning process to help identify challenges and develop suitable adaptation strategies. Establishing a dedicated coastal community fund would provide these communities with the resources needed to explore adaptation options and initiate their own projects.

Efforts should be made to assist coastal and island communities in accessing green finance and alternative funding sources for coastal adaptation projects. This support will be crucial in enabling these communities to implement effective adaptation measures and enhance their resilience to climate change impacts.

About you

33 What is your name?

Name:

Sarah Fanet - Chair of the Climate Change Committee

34 Are you responding as an individual or an organisation?

Organisation

35 What is your organisation?

Organisation:

The Highland Council

36 Further information about your organisation's response

Please add any additional context:

This submission has been written by Councillors from the Climate Change Committee, with specialist advice from Ecology, Environmental and Climate Change Officers.

37 The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:

Publish response with name

38 Do you consent to Scottish Government contacting you again in relation to this consultation exercise?

Yes

39 What is your email address?

Email:

Claire.Weaver2@highland.gov.uk

40 I confirm that I have read the privacy policy and consent to the data I provide being used as set out in the policy.

I consent

Evaluation

41 Please help us improve our consultations by answering the questions below. (Responses to the evaluation will not be published.)

Matrix 1 - How satisfied were you with this consultation?:

Please enter comments here.:

Matrix 1 - How would you rate your satisfaction with using this platform (Citizen Space) to respond to this consultation?:

Please enter comments here.: