



Stop Climate Chaos Scotland

Briefing for Parliamentary debate on the IPCC Special Report on Global Warming of 1.5°C

November 2018

Stop Climate Chaos Scotland (SCCS) is a diverse coalition of international development and environment organisations, trade and student unions, faith and community groups. We believe that the Scottish Government should take bold action to tackle climate change, with Scotland delivering our part of the Paris Agreement and supporting climate justice around the world. This briefing outlines our collective concerns about the impacts of climate change and highlights the actions that Scotland needs to take in the new Climate Change Bill. A number of SCCS members contributed to sections of this briefing relevant to their work.

Key points

- The recent IPCC *Special Report on Global Warming of 1.5°C*, the most recent scientific global report on climate change, makes clear that all governments must act faster to limit global warming to 1.5°C in order to protect people and planet.
- Scotland's new Climate Change Bill provides an opportunity to commit to the urgent action the IPCC shows is required to limit global warming to 1.5°C. We need:
 - Stronger action in the next decade: a target to reduce all greenhouse gases 77% by 2030;
 - To reach net zero greenhouse gas emissions by 2050 at the latest; and
 - New policy action to cut emissions from transport, homes and agriculture.

Key findings of the IPCC report

The Intergovernmental Panel on Climate Change (IPCC) is an independent international body of scientists, endorsed by the UN, which provides objective scientific views on climate change from a global perspective. On Monday 8 October 2018 the IPCC released a special report that set out, for the first time, the impacts of breaching a 1.5°C rise in global temperature and the urgent global actions required.

The report's key messages are:

1. *Keeping global temperature rises to no more than 1.5°C is vital to protect people, planet, and nature*

The report is clear that even a temperature increase of 1.5°C from pre-industrial levels will mean far-reaching and damaging changes for people, places and nature. Comparatively, limiting climate change to 1.5°C is less risky and less damaging, and particularly protects the most vulnerable people and places. Allowing warming to reach 2°C rather than 1.5°C would have even more devastating impacts. Impacts include:

- **60 million more** urban residents exposed to severe drought by 2100;
- An additional **2 billion people worldwide** exposed to extreme heat waves at least once every 20 years;
- The Arctic will be **ice-free at least once every 10 years**, rather than once every 100

years, with far-reaching consequences for arctic wildlife; and

- Virtually **all coral reefs are lost by 2100**, due to bleaching, whereas 1.5°C means we keep up to 30% of today's coral reefs. A quarter of all marine species, and **around a billion people**, depend on coral reefs.

The report makes clear that on current trajectories the world could exceed 1.5°C of global warming as early as 2030. Human action has already caused the planet to warm by over 1°C and previous UN reports¹ have found that, with current international commitments to action, **the world is currently on track to catastrophic global warming of 3°C**.

The emissions targets in the new Climate Change Bill will not cut Scotland's emissions in line with a 1.5°C pathway. For the Bill to deliver on Scotland's share of the Paris Agreement, Parliament must act to significantly strengthen targets within the next decade and set a net zero target for all greenhouse gas emissions by 2050 at the latest.

2. Limiting warming to 1.5°C requires "rapid and far-reaching" action

The IPCC is clear that it is possible to limit warming to 1.5°C, but requires **a significant (45%) reduction in global carbon dioxide emissions by 2045**, based on 2010 levels, and **"deep reductions" in other greenhouse gases**.

The report highlights potential pathways for limiting warming to 1.5°C. It warns that any delay in action risks "cost escalation" and "reduced flexibility in future response options" – meaning the longer we wait to take action, the more costly the action will be.

3. Rich countries like Scotland needs to act faster

While climate change is a global issue, it is developing countries which will suffer the most from the impacts of rising temperatures while developed nations have a greater historic responsibility for causing climate change.

The report highlights that the "populations at disproportionately higher risk of adverse consequences of global warming of 1.5°C and beyond include disadvantaged and vulnerable populations, some indigenous peoples, and local communities dependent on agricultural or coastal livelihoods". The Paris Agreement states that addressing **equity across generations and regions, poverty eradication and sustainable development** should all be key considerations in efforts to tackle climate change.

Scotland, as a wealthy, industrialised nation should be acting to cut emissions faster than the global average.

The moral case for action in response to this report

Impact on people

For developing countries, and for millions of people living in poverty in these countries, global temperature increases beyond 1.5°C would literally be a matter of life or death. Warming over 1.5°C means millions more people exposed to droughts, heat-waves and

¹ <https://news.un.org/en/story/2017/10/569672-un-sees-worrying-gap-between-paris-climate-pledges-and-emissions-cuts-needed>

floods; irreversible loss of biodiversity; ocean warming that threatens marine life and the people who depend on it; and rising sea levels that will wipe small island states off the face of the earth. What this amounts to is nothing short of a climate catastrophe, which will lead to unprecedented levels of climate migration as thousands are forced from their homes to try to find a habitat that can support their families.

People across the world are already experiencing damaging impacts of climate change. Mork Nay, a Cambodian farmer, told SCCS that *“climate change is getting worse and I don’t know what to do to cope with it. I’m not sure about the future”*. In 2014, the area he lives in was flooded and rice stocks were destroyed, having a devastating impact on his family who were already struggling to get by. The floodwater stayed for a month and was 1.5 metres deep. Many people have already left his community as a result, struggling to find a place to support themselves and their families. This story is not uncommon. For countries like Cambodia, and communities like Mork Nay’s, climate change is undoing the progress made through development.

Climate change is not just an environmental issue, climate change is a justice issue. People like Mork Nay, in countries like Cambodia, have done the least to contribute to climate change, yet are already enduring its effects. Countries like Scotland, with the economic means, technical capability and political will must set urgent and bold targets now, and lead the world on emissions-reduction ambition. Countries like Scotland owe a debt to countries like Cambodia, having reaped the vast benefits of heavy emitting industrialisation. Scotland has a proud record of climate justice funding; supporting communities through climate adaptation projects since 2012. This approach to global equity must be reflected in our emissions targets.

Impact on wildlife

Climate change is the greatest long-term threat to the wildlife of our planet. Marine² and terrestrial³ species in Scotland are already being affected now by climate change and *The State of the UK’s Birds Report 2017*⁴ showed in detail the impact of climate change on birds. A global study in the journal *Nature*⁵ calculated that, using mid-range climate-warming scenarios, by 2050 15–37% of species will be ‘committed to extinction’.

The IPCC report⁶ showed that a half degree difference in warming between 1.5°C and 2°C of warming would result in twice as many terrestrial plant species and vertebrate animals losing more than half of their home range, a tripling of the same range loss for insects, and greater impacts on marine species ranges and marine food-webs. It is critical for wildlife and ecosystems that temperature rises are limited to 1.5°C warming.

The wildlife and species with which we share the planet, and upon which we depend, are suffering the impacts of climate change despite not causing it. Some species and ecosystems, for example coral reefs, are much more vulnerable to global warming than humans and allowing warming go beyond 1.5°C will be catastrophic.

² <http://www.scotlink.org/wp/files/documents/Climate-Change-and-Marine-Species-1.pdf>

³ <http://www.scotlink.org/wp/files/documents/Climate-Change-and-Terrestrial-Species.pdf>

⁴ <https://www.rspb.org.uk/globalassets/downloads/documents/conservation-science/220-0653-17-18-sukb-2017-web-20-3-18.pdf>

⁵ *Nature* volume 427, pages 145–148 (08 January 2004), *Extinction risk from climate change*.
<https://www.nature.com/articles/nature02121>

⁶ IPCC, 2018, *Global Warming of 1.5C* <http://ipcc.ch/report/sr15/>

It is our moral responsibility as a developed country, and one which has benefited most as an industrialised nation, to take urgent action to curb emissions, and reach net zero greenhouse gas emissions by 2050 at the latest.

What this report means for Scotland

SCCS sees this report as a clear sign that Scotland needs to take bold action to tackle climate change, with Scotland delivering our fair part of the Paris Agreement and supporting climate justice around the world. To achieve this, the Climate Change Bill should commit Scotland to:

- A 77% reduction in greenhouse gas emissions by 2030 (compared to 1990 levels)
- A target for net zero emissions of all greenhouse gases by 2050 at the latest;
- Putting policies into legislation to help achieve these objectives; including:
 - Ensuring that future finance budgets are consistent with our climate targets;
 - Improving energy efficiency of Scotland’s homes - ensuring all homes have an Energy Performance Rating of ‘C’ by 2025;
 - A nitrogen balance sheet to ensure more efficient use of nitrogen and other measures to support greener farming; and
 - Phase out the sale of new fossil fuel vehicles by 2032, with better public transport and active travel measures as well as support for electric vehicles.

Below we outline further detail on some of the action Scotland needs to take in response to this report.

Food systems: part of the solution

The way we produce and consume food is a major driver of climate change. At the same time, agriculture and food security are also threatened by climate change. Food and farming must urgently become part of our positive action on climate change, and researchers and civil society are already providing evidence and constructive solutions to that purpose.

Globally, our food system is responsible for around 30% of emissions. In Scotland, agriculture alone is responsible for 26% of emissions. In the wake of the IPCC report launch, a team of top researchers published a study which urged for ‘huge reduction in meat-eating’ in order to avoid ‘climate breakdown’⁷ Last week, Prof Macdiarmid wrote in SPICe Spotlight⁸: “Changing what we eat, now has to be one of the priority areas for reducing emissions.”

2018 already showed us what climate change might mean in the 21st century, with our farmers experiencing multiple hardships and tragedies because of the types of extreme weather events that are predicted to increase in frequency and intensity. Climate change will cause hardship for rural communities and threaten food security across the globe.

There is no lack of evidence about the contributions that farmers and land managers can make to climate mitigation efforts⁹. The vast majority of measures have been demonstrated

⁷ <https://www.theguardian.com/environment/2018/oct/10/huge-reduction-in-meat-eating-essential-to-avoid-climate-breakdown>

⁸ <https://spice-spotlight.scot/2018/11/09/what-we-eat-and-meeting-our-climate-change-commitments/>

⁹ <http://www.pnas.org/content/114/44/11645> & <https://www.sciencedirect.com/science/article/pii/S1750583617310794>

to have wider benefits, from improved farm profitability and resilience, to ecosystem services such as water filtration, flood buffering, soil health, and biodiversity habitat.

Action on climate change is not the main threat to farming, inaction is. Political leadership is urgently needed to help farmers become part of climate solutions and adapt to changing environments and diets; and to drive consumption changes further.

Achieving a Just Transition

A Just Transition means moving to a modern low-carbon economy in a way which protects workers' livelihoods, creates a new industrial base and delivers a fairer Scotland. This concept is central to a successful response to climate change and the implementation of climate targets. Bold targets need strong delivery plans, public enthusiasm and engagement in achieving them. The Just Transition approach to the achievement of emissions reduction targets encompasses all of these. It reflects the need to ensure popular support by taking the needs of workers and communities into account and bringing wider socio-economic benefits for citizens of Scotland.

Substantial changes are needed to decarbonise our economy and support good quality employment. This will require large-scale investment in transformation of the production and consumption of energy, as well as reductions in overall energy use. The positive opportunities which are presented by meeting the technical challenges of energy transformation should be embraced: done in the right ways, the transition to a low carbon economy can create good new jobs, yield significant economic and social benefits, as well as avert the potentially catastrophic environmental consequences of climate change.

SCCS has welcomed the Scottish Government's establishment of a Just Transition Commission. However we believe that the Commission should be set on a statutory basis in the Bill, for the duration of the climate targets laid out. It should enshrine a Just Transition approach to the delivery of climate change targets, and require future Climate Change Plans to report on employment and Just Transition measures.

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