

SCOTLAND'S NEW CLIMATE CHANGE BILL

PROVIDING LEADERSHIP IN AN AGE OF UNCERTAINTY



CLIMATE CHANGE: A JUSTICE ISSUE

There is no doubt about it anymore the world is facing an ecological, humanitarian and moral crisis as we approach the point of no return from irreversible global warming and climate chaos.

Throughout the 21st century, millions of people will be affected by climate change, with impacts on food security, livelihoods, health and other basic needs¹. Those already living in poverty will suffer the most.

Historically, economic development has gone hand-inhand with increasing energy use and growth of greenhouse gas (GHG) emissions². Industrialised nations have benefitted from a model of development which is now hurting our poorest sisters and brothers.

We need to find a new way forward. In his ecological encyclical Laudato Si', Pope Francis calls on all humanity to undergo an 'ecological conversion'. Pope Francis urges us to move away from our current economic system based on the burning of fossil fuels and to seek safer alternatives that do not damage our common home and the people who live in it. This conversion must begin immediately; climate change, Pope Francis says, is a problem we can no longer leave for future generations to deal with.

In 2015, the Paris Climate Agreement brought together 197 nations around a common commitment - to hold the increase in the global average temperature to well below 2°C and to pursue efforts to limit temperature increase to 1.5°C above pre-industrial levels³. The first steps towards a fairer, safer future have been taken, but the Paris Agreement will only deliver if countries follow through with their commitments at a national level.

Unless states increase their current pledges to cut emissions, the world is on a path towards a 3°C temperature rise⁴. There is an urgent need to increase ambition, but even some of these existing commitments are under threat - with the United States withdrawing its participation from the Agreement, the rest of the world will have to work even harder to care for our common home.

Key recommendations for Scotland's new **Climate Change Bill**

SCIAF's vision is for a just world, where human dignity and human rights are upheld for all. Climate change undermines this vision.

Despite doing least to cause the problem of climate change, it is poor communities that are most vulnerable to the devastating impacts of floods, droughts and storms. Climate change impacts on nearly every aspect of people's lives; their livelihoods, their ability to feed their families, their shelter and their health. And it threatens to undo all the progress we've previously made on tackling poverty.

If we are to stop runaway climate change it is vital that richer countries take the lead in cutting their emissions and supporting developing countries to develop on a low-carbon path. Scotland has a proud history of standing up to injustice wherever it occurs in the world. In the coming months, the Government must seize the opportunity to introduce a bold, fair and truly world-leading Climate Bill.

To that end, SCIAF calls on the Scottish Government to:

- transparent
- targets

In addition, with our friends at Stop Climate Chaos Scotland, SCIAF calls for the Government to:

homes and cleaner transport.

SCIAF

The Scottish Catholic International Aid Fund (SCIAF) is the official overseas aid and development charity of the Catholic Church in Scotland. SCIAF runs projects in 15 countries in Africa, Asia and Latin America, helping thousands of people of all faiths and none to overcome hunger, poverty, war and natural disasters every year. Inspired by the Gospel, our mission is to help the poorest free themselves from poverty by equipping them with the tools they need to survive and thrive. Working with the Scottish public, we put pressurise on governments and big business to change the political and social systems that keep people in poverty.

197 nations agreed to keep global

warming below 2°C

• Set a target of zero greenhouse gas emissions by 2050 at the very latest, and a reduction of 77% by 2030, ensuring climate targets are set within a fair and safe global emissions budget and that accounting is

• Ensure that future finance budgets are consistent with our climate

 Establish an independent Just Transition Commission to oversee the move from fossil fuel production to new, clean industries

• Explore options to tackle Scotland's consumption-based emissions

 Commit to actions that cut emissions and deliver a cleaner, healthier, more prosperous Scotland, through greener farming, energy efficient



Climate change in El Salvador

Dr. Ricardo Navarro is the founder of El Salvador's largest environmental NGO and SCIAF's partner CESTA (Salvadoran Centre for Appropriate Technology). An engineer by training, Dr Navarro has led the fight for climate justice in his home country and abroad – a decade ago, he campaigned alongside SCIAF for an ambitious 2009 Climate Act in Scotland.

"In El Salvador, climate change is already killing people. In the last decade we've seen a huge increase in floods, droughts, storms and hurricanes and we're expecting it to get even worse, affecting mostly the poorest people in society.

"The injustice is that the people who are being affected the most are not responsible for creating the problem of climate change. The UK is responsible for more than seven times the amount of carbon emissions as El Salvador.

"Richer countries like Scotland must rapidly cut their greenhouse gas emissions if we're to stop climate change running out of control."



"IN EL SALVADOR, CLIMATE CHANGE IS ALREADY KILLING PEOPLE."

Climate change in Nicaragua

The Central American country Nicaragua has been ranked 4th in a listing of countries most affected by climate change over the last 20 years. The analysis, conducted by think tank Germanwatch, estimates that the country has lost over \$234 (£180) million due to climate change in this period⁵. The impacts of global warming are evident in the lives of Nicaraguans – farmers are struggling to cope with the changing weather, and prices for staple foods are fluctuating drastically.

Together with our local partners, SCIAF delivers projects that help vulnerable communities deal with the impacts of global warming. But adaptation measures alone are not enough; our brothers and sisters in Nicaragua are calling on countries like Scotland to take bold actions in curbing global emissions.



"Climate change is affecting us. Drought is a big issue; we have lost crops, and rivers have dried up. The water-table has dropped, meaning there is less water in the wells for us to use... I would like to ask the Scottish Government to support us. Humans aren't thinking about what they are doing, they are wasting natural resources. Instead of destroying these resources we should be preserving them and investing in renewable energy."

Dominga del Carmen Sotelo Vazquez, Nicaragua

The Scottish Climate Bill AN OPPORTUNITY TO LEAD THE WAY

Scotland has already taken key steps to reduce emissions and support developing nations to adapt to the changing climate.

The current Scottish Climate Change Act, which requires Scotland to reduce its emissions by 80% by 2050, was set as the minimum requirement to keep warming below 2°C. However, the Paris Agreement sets us a new challenge to scale up our ambition; with states committing to significantly reduce their own emissions and to support developing countries in their efforts to mitigate and adapt to climate change.

The upcoming Climate Bill is a crucial opportunity for Scotland to meet this new challenge, and to ensure it is contributing its fair share to the emission reductions needed to keep the world to a safe warming limit.

In 2015 the Scottish Government committed

£12M over five years for adaptation work overseas.

CLIMATE FINANCE

Industrialised countries owe so much ecological debt to the rest of the world that they will not be able to pay it back through emission reductions alone. Wealthy countries will need to subsidise this gap by providing financial assistance to developing nations in their efforts to mitigate climate change and adapt to global warming.

United Nations Environment Programme (UNEP) research indicates that the costs of adaptation could range from \$140 (£108) to \$300 (£231)bn by 2030 and between \$280 (£216) and \$500 (£386)bn by 2050. Yet commitments to adaptation finance fall far short of what is required, with "current adaptation costs... likely to be at least two to three times higher than international public finance for adaptation".⁶ Wealthy countries must make clear quantitative commitments to adaptation and mitigation finance that is additional to existing overseas development assistance.

Scotland has recognised the need to support developing countries to tackle climate change. In 2012, the Scottish Government launched the Climate Justice Fund with a £3 million budget. In 2015 the First Minister committed to providing a further £12 million over five years. We call on the Scottish Government to continue its commitment to climate finance, with a long-term view of increasing support and ensuring climate funding is additional to its development finance commitment. We also urge Scotland to champion calls for increased public and private climate finance in international fora.



"Let us be protectors of creation, protectors of God's plan inscribed in nature, protectors of one another and the environment."

1. Net zero GHG emissions – delivering the Paris Agreement

In the Paris Agreement, countries agreed to "achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases" in the second half of the century⁷. This means that countries need to achieve 'net zero emissions' – that is, GHG emissions have to be reduced by nearly 100%, and the remaining small amounts of emissions need to be absorbed by negative emissions technology.

The Paris Agreement also states that net zero emissions will need to be achieved on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. Each country should contribute to efforts to halt climate change according to their "common but differentiated responsibilities and respective capabilities". This means that industrialised countries like Scotland, which have historically polluted more, must reduce their emissions at a faster rate than poor developing countries.

The current Scottish Climate Change Act requires Ministers to set annual targets in line with a 'fair and safe' cumulative emissions budget. A fair budget is one which takes into account the common but differentiated responsibilities and capabilities of states, while a safe budget requires countries to keep warming below levels which would cause considerable harm to humans.

A 'Fair Shares' approach shows that far greater efforts are required from industrialised nations to cut their GHG emissions if they want to do their fair share to tackle the problem⁸. This approach comes from looking at historical responsibility for causing the climate problem, as well as the capacity of countries to tackle climate change now. This Fair Shares approach was used by civil society to assess the pledges from countries in the run-up to the Paris Agreement⁹.

Friends of the Earth Scotland have used this approach to estimate Scotland's fair share. This suggests that Scotland should cut GHG emissions to net zero between 2036 and 2041¹⁰. The UK Committee on Climate Change (UKCCC), the independent body providing advice to the UK and Scottish Governments, has made its own estimates and it has said that it is possible for Scotland to reduce GHG emissions by 89-97% by 2050¹¹. Considering the urgency of the task at hand, it is crucial that we aim high; in doing so we can encourage innovation and set a positive example to other nations.

We know that our chances of preventing runaway climate change increase the sooner we manage to cut emissions; this is because the longer greenhouse gases are left in the atmosphere, the worse their impact on the ozone layer. That is why we need to couple an ambitious 2050 target with a stretching interim target for 2030.

With the Fair Shares approach in mind, SCIAF is calling for the new Climate Bill to include a target to reach net zero by 2050, at the very latest. Additionally we call for Scotland to cut emissions by 77% by 2030; doing so would put Scotland on a firm path to net zero reductions by mid-century. SCIAF believes this call is a compromise between what is politically feasible and what is ethically necessary. We know that our chances of preventing runaway climate change increase the sooner we manage to cut emissions

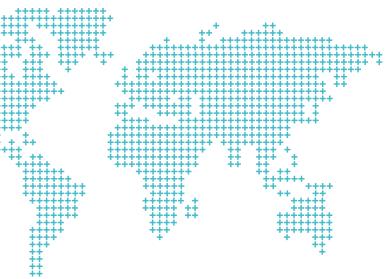
STAYING ON TOP OF OUR FAIR SHARE

Climate science and accounting are constantly changing. Since the current Climate Change Act was introduced, our understanding of Scotland's historic emissions and budget has changed significantly. With our responsibility to contribute our fair share to the safe global emissions budget, it is crucial that we ensure our ambition is in line with the reductions that are required.

Countries will review their pledges to the Paris process every five years, ensuring that their planned emissions reductions are sufficient to keeping the world on the right track. These review points would provide Scotland with the opportunity to ensure its level of ambition is in line with its fair share of a safe global emissions budget.

The new Climate Bill should, therefore, require Scottish Ministers to seek advice from the UKCCC, on whether the Scottish overall target and interim targets are still in line with our fair share. The revision should take into account new scientific evidence and developments in accounting, and should be restricted to revisions towards higher ambition, not lower.

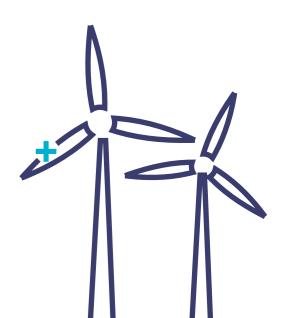
In addition to reviews in line with the UNFCCC process, the new Climate Bill should require Ministers to report on annual targets. In SCIAF's experience yearly opportunities to assess progress helps keep the Scottish Parliament and Government focused on the significant and urgent task at hand.



TRANSPARENT ACCOUNTING

In order to tackle our nation's carbon footprint, we need to be able to truthfully measure how much GHG emissions Scotland emits. At the moment, Scotland's emissions account is a combination of Scotland's territorial emissions and Scotland's share of the EU Emissions Trading Scheme (ETS) for those industries that the scheme covers. This means that Scotland's emissions reporting reflects the frequent changes to its share of the EU ETS, making it harder to identify how policy action has impacted on Scottish emissions.

SCIAF believes that by moving from the current accounting system to one based on gross Scottish emissions (i.e. emissions from Scotland's territory), stakeholders and the general public would gain access to clearer information on the impact of climate action on emissions.



2. Aligning spending with climate goals

In order for the Scottish Government to deliver on its climate ambition, all Ministers must keep emissions in mind when planning and delivering policies. One way to ensure this is by making Scotland's budget align with its Climate Change Plans.

Under the current Scottish Climate Change Act, the Scottish Government publishes a simple analysis of the immediate climate consequences of its spending. This means that the long-term carbon emissions from spending are not considered by the Scottish Government when it plans its budget. For example, the carbon report on a new road development will only reflect emissions from the construction of the road – not the carbon consequences of increased traffic.

While the budget plays a key role in delivering on Scotland's Climate Change Plans, these two documents are not currently linked, making it difficult for stakeholders and the general public to scrutinise the Government's investments in its climate policy. Furthermore, the Climate Change Plans do not need to detail the amount of investment required to deliver each policy included in them.

The new Climate Bill should require the Scottish Government to align its spending plans with the Climate Change Plans, clearly showing how the former is used to deliver the latter. In order to deliver this, the new Climate Bill should create an independent Low-carbon Infrastructure Commission. The Commission would be responsible for analysing the Scottish Government's capital budgets to ensure that they are aligned with meeting climate targets.

3. Just transition to a fossil free future

In Scotland, the fossil fuel industry has allowed many to flourish, but is providing increasingly insecure jobs for communities who have come to depend on it. It is estimated that 120,000 jobs supported by the UK's offshore oil and gas industry have been lost since 2014, when fluctuations in global oil prices drove the industry into a crisis¹². We know that if the world keeps to its commitments to the Paris Agreement, the vast majority of oil, coal and gas will have to remain unexploited. A transition from the use of fossil fuels for energy is inevitable.

It is vital that a move to clean energy makes the best use of the skills and expertise of workers and opens new opportunities for people employed in the sector in Scotland. With strategic, long-term planning, Scotland could demonstrate to the world that a transition away from fossil fuel production and consumption can benefit the economy and society, as well as the planet.

We recommend that through the Climate Bill, the Scottish Government legislates for a Just Transition Commission to oversee the transition from fossil fuels to clean energy alternatives and to provide the strategic long-term vision required for this transition. The Commission would be made up of a balanced group of senior personnel with backgrounds in trade unions, environmental organisations, industry and commerce, enterprise, the community sector and civic society.

4. Keeping track of consumption

In addition to emissions generated by activity within Scotland's borders, we also contribute to global emissions by consuming products and goods that have been produced elsewhere. A report by the UKCCC on consumption reporting for the UK found that despite domestic emissions reductions, the country's carbon footprint has increased over the past two decades, as growth in imported emissions has more than offset reductions in production emissions¹³.

Reducing our consumption is therefore key, if we want to tackle global emissions. In *Laudato Si'*, Pope Francis urges us to recognise *"the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it* ¹⁴." The current Climate Change Act includes a Ministerial duty to report on the emissions from goods and services consumed in Scotland. However, this report is only produced every five years or so, and there is no requirement for the Scottish Government to reduce consumption-based emissions.

The new Climate Bill should include a requirement for annual reporting with a view to reducing consumption-based emissions. This new requirement would enable the Scottish Government to identify the most impactful policy levers for reducing its contribution to global emissions. For instance, in the long-term, reporting could be used to create carbon footprint labelling for products, enabling individual consumers to make informed, climate friendly choices.



5. Bold policy action to deliver our ambition

The level of ambition needed to deliver on our Paris commitments will require radical changes to the ways in which our societies and economies are organised. Along with our friends at Stop Climate Chaos Scotland, SCIAF believes that Scotland is well-placed to explore ambitious new policies that would significantly decrease our carbon emissions and set an example of a low-carbon transition to the rest of the world. Transformative policies are particularly important in sectors where emission savings achieved thus far have been modest.

WARMER HOMES

Making our homes and buildings more energy efficient is one of the cheapest ways to reduce emissions. Energy efficiency measures also make it cheaper and easier for people to heat their homes and would, therefore, lead to substantial long-term health and social benefits. The Scottish Government has made energy efficiency one of its National Infrastructure Priorities, and has committed to delivering this priority through the Scottish Energy Efficiency Plan (SEEP).

We believe that the new Climate Bill could be used to ensure the timely and efficient delivery of this plan by putting targets and milestones of SEEP onto a statutory footing, including a milestone of bringing all homes up to at least energy efficiency rating 'C' by 2025. By creating a new public body responsible for delivering SEEP, the Scottish Government could ensure that its new commitments will be carried out with the urgency and efficiency required.

CLEANER TRANSPORT

Transport emissions are now the largest source of GHG emissions in Scotland, contributing over a quarter of emissions in 2015¹⁵. Emissions levels have remained virtually unchanged since the 1990s, and the Scottish Government's recent projections envisage even further increases in transport demand¹⁶. If Scotland is serious about transitioning to a low-carbon economy, action to curb emissions must be taken urgently. Around the world, countries are setting ambitious targets for phasing out fossil fuel vehicles; Norway seeks to end sales of petrol and diesel powered vehicles by 2025¹⁷, while India has set this target for 2030¹⁸.

SCIAF believes that in the new Climate Bill, Scotland should set a target of phasing out sales of new fossil fuel cars by 2030. This target should be accompanied by a requirement to produce a strategy to deliver the phase-out.

GREENER FARMING

Agriculture is a considerable contributor to GHG emissions. In Scotland, the sector accounts for 22.5% of total GHG emissions¹⁹. Unlike other sectors, the two most significant greenhouse gases from farming are Nitrous Oxide (N2O) and Methane (CH4), with both having a much higher warming potential than CO2. N2O is emitted when more chemical fertiliser is spread than is needed or can be taken up by the crop.

By introducing a nitrogen budget through the new Climate Bill, the Scottish Government could encourage farmers to make their use of fertilisers more efficient. Substantial emissions savings have been achieved by a similar policy in Denmark, which has been in place since the 1990s²⁰. The policy would also encourage farmers to switch to alternative fertilisers, such as composts made from recycled food wastes.

Conclusion SCOTLAND IS IN A UNIQUE POSITION TO LEAD THE WAY TO A FAIRER, SAFER WORLD.

Delivering on a commitment to net zero emissions by 2050 will be challenging; it will require a substantial transformation of our economy – a transformation which will take resources and decisive-policy action. However, this transformation will ultimately be in Scotland's best interest. It will deliver long-term economic gains, moving our nation away from reliance on a volatile fossil fuel economy; it will ensure a more secure and safe future for our global community of nations; and crucially, it will protect our common home and our poorest brothers and sisters.

An ambitious new Climate Change Act will serve as a vital starting point for action for the decades ahead. It will provide industry, civil society and government with a long-term vision and common goal that will enable us to innovate, plan and take action. SCIAF calls on Scotland's decision-makers to protect our common home and implement bold, new climate legislation.



REFERENCES

- See for instance, World Bank, Shockwaves: managing the impact of climate change on poverty, 2016, https://openknowledge.worldbank.org/bitstream/ handle/10986/22787/9781464806735.pdf and UNDP, Scaling up Climate Action to achieve the SDGs, 2016, http://www.undp.org/content/undp/en/home/ librarypage/climate-and-disaster-resilience-/scalingup-climate-action-to-achieve-the-sdgs.html
- IPCC, Renewable Energy and Climate Mitigation:
 Summary for Policymakers and Technical Summary:
 Special Report of the Intergovernmental Panel on
 Climate Change, 2012
- 3 Paris Agreement, United Nations, 2015 http://unfccc.int/ files/essential_background/convention/application/ pdf/english_paris_agreement.pdf
- 4 UNFCCC, Synthesis report on the aggregate effect of Intended Nationally Determined Contributions, May 2016, http://unfccc.int/focus/indc_portal/items/9240.php
- 5 Germanwatch, Global Climate Risk Index, 2017, https:// germanwatch.org/en/download/16411.pdf
- 6 UNEP, The Adaptation Finance Gap Report, 2016, http:// www.unep.org/adaptationgapreport/sites/unep.org. adaptationgapreport/files/documents/agr2016.pdf
- 7 The Paris Agreement, Dec 2015 https://unfccc.int/files/ meetings/paris_nov_2015/application/pdf/paris_ agreement_english_.pdf
- 8 Climate Fair Shares, http://www.climatefairshares.org
- 9 Fair Shares, A civil society equity review of the INDCS, October 2015, http://policy-practice.oxfam.org.uk/ publications/fair-shares-a-civil-society-equity-reviewof-indcs-579848
- 10 Friends of the Earth Scotland, UKCCC Call for Evidence on Scottish Climate Change Bill, 2017, http://www. foe-scotland.org.uk/sites/www.foe-scotland.org.uk/ files/UKCCC%20targets%20consultation%20FoES%20 response%20Feb%202017.pdf

- 11 https://www.theccc.org.uk/wp-content/ uploads/2017/03/Advice-to-Scottish-Government-on-Scottish-Climate-Change-Bill-Committee-on-Climate-Change-March-2017.pdf
- 12 Oil & Gas UK, Oil & Gas UK figures show impact of oil price downturn on jobs, June 2016, http://oilandgasuk. co.uk/oil-gas-uk-figures-show-impact-of-oil-pricedownturn-on-jobs/
- 13 UKCCC, Reducing the UK's Carbon Footprint,
 2013, https://www.theccc.org.uk/wp-content/
 uploads/2013/04/Reducing-carbon-footprint-report.
 pdf
- 14 Pope Francis, Laudato Si, 2015, http://w2.vatican.va/ content/francesco/en/encyclicals/documents/papafrancesco_20150524_enciclica-laudato-si.html
- 15 Scottish Government, Scottish Greenhouse Gas Emissions 2015, 2017 http://www.gov.scot/ Resource/0052/00520839.pdf
- 16 Scottish Government, Draft Climate Change Plan, Jan 2017, http://www.gov.scot/Resource/0051/00513102. pdf
- 17 WWF Scotland, Supporting electric vehicles: Norway, 2016 https://www.wwf.org.uk/sites/default/ files/2016-12/Norway%20-%20EVs%20.pdf
- 18 World Economic Forum, May 2017, https://www. weforum.org/agenda/2017/05/india-electric-car-salesonly-2030/
- Scottish Government, Scottish Greenhouse Gas
 Emissions 2015, 2017 http://www.gov.scot/
 Resource/0052/00520839.pdf
- 20 Phys.org, 2015: https://phys.org/news/2015-09-danishnitrogen-nutshell.html

Acknowledgements.

This report was written and researched by SCIAF Policy Officer Milja Komulainen with input from Joanne O'Neill. Thank you to Colin Hattersley, Thomas Omondi, Simon Murphy and the Cantera Foundation for the photographs.





"WE ARE ALL RESPONSIBLE FOR THE PROTECTION OF THE ENVIRONMENT. THIS RESPONSIBILITY KNOWS NO BOUNDARIES."

Pope Benedict XVI

www.sciaf.org.uk

f ♥ Scottish Catholic International Aid Fund 19 Park Circus Glasgow G3 6BE T: 0141 354 5555 E: sciaf@sciaf.org.uk

SCIAF is the official overseas aid and development charity of the Catholic Church in Scotland and a a proud member of the Caritas family. Registered Scottish charity No SC012302 Company No: SC197327