

# CLIMATE CHANGE, 28.3.18

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## Climate Change

What is it, what causes it and what effects is it having now & likely to have?

How has Scotland been doing in tackling climate change?

Scotland's new Climate Change Bill – what is it & what needs to change?

What does climate action look like around the world?

- What is it? (and what is it not...?)
- What drives it?
- What effects is it having?
- What effects could it have in future?

### What drives climate change?

**Transport- 27.3%**

**Energy supply - 25.4%**

**Agriculture - 22.5%**

**Business and Industry - 17.9%**

**Homes - 12.7%**

**Development - 3.5%**

**Public Sector - 2.3%**

**Waste - 2.9%**

### What effects is it having?

1. Half of the world's species in our most precious eco systems face extinction because of climate change, according to new research from WWF
2. Climate change is driving human migration around the world, with countries. Recent research suggests that as many as one billion people may be climate refugees by 2050 (see <https://reliefweb.int/report/world/climate-migrants-might-reach-one-billion-2050>)
3. Within wealthy nations such as the UK and USA, climate change is also having a significant effect. For example, in 2017 the United States experienced 16 separate extreme weather events which cost the economy over \$1bn each time (see <https://www.climate.gov/news-features/blogs/beyond-data/2017-us-billion-dollar-weather-and-climate-disasters-historic-year>)

### What effects could it have in the future?

Climate change will continue to have severe and adverse impacts on people, wildlife and the wider environment. The level of severity of climate change's impacts depends on the action we take in the next few years and the extent to which we limit global temperature increases.

The Paris Climate Agreement requires countries to take action to limit global temperature increases to 2 degrees Celsius, compared with pre-industrial times, and to pursue efforts to limit global temperature increases to 1.5 degrees.

The difference between these two temperature increases may seem small, but by limiting temperature increases to 1.5 degrees, we significantly increase the chances of protecting people, wildlife and the environment from the worst impacts of a changing climate.

For example

If global temperature increases reach 2 degrees, there's a 99% chance that all coral reefs will die. Under a 1.5 degree scenario, that chance falls to 70%. Given that a quarter of all marine life on earth and 1 billion people depend on our coral reefs for their survival, it's imperative that we limit warming to 1.5 degrees.

Under a 2 degree scenario, species and habitat loss will be 50% greater than under a 1.5 degree scenario, including in some of the most sensitive places on the planet such as the Arctic.

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## **How is Scotland doing?**

From 1990 to 2015

The energy sector has reduced its harmful impact (although there's still a long way to go) and demonstrates that transport and agriculture have barely reduced their emissions over the last 25 years.

It's worth noting that whilst progress has been made in insulating Scotland's homes and using less energy in the process, the majority of our homes still fall below the standard recommended for our health, and are leaking precious energy in the process.

The poor energy efficiency of many of our homes means that our energy use and therefore our emissions go up during cold winters, as see in the chart above.

## **Some great things**

- 41% emissions reduction
- 50%+ electricity from renewables
- 50% renewables target for all energy by 2030

- More community owned managed energy

Scotland has achieved some fantastic things for the planet and we continue to make great strides towards a low carbon future. For example, the 2009 Climate Change Act set a target for reducing emissions by 42% by 2020, compared with 1990 levels and we've already got to 41%. At the time, no one was certain how that target would be achieved, but we're on track to smash it.

We now get more than half our electricity from renewable sources and the Scottish Government has set a target of getting half of all our energy (across heat, transport and electricity) from renewables by 2030.

### **But...**

Scotland is still locked into the oil and gas industry. Political support for the industry is strong, particularly amongst the SNP, but also with the Conservatives and Labour.

However all the science is clear – we simply cannot afford to keep using oil and gas if we are to tackle climate change. Indeed, we need to leave 80% of the oil and gas that we've already discovered, underground, nevermind searching for more.

Yet we still subsidise the oil and gas industry and support them to search for new fossil fuel deposits. In 2015, Norway got £17bn from the oil and gas industry in taxes. In the UK, we got just £222m because of our lax approach to taxation and our subsidies for the industry.

The UK Government gave Shell £80m in tax rebates in 2015 whilst they cut 13,000 jobs & paid shareholders £7.9bn. Meanwhile in Norway, Shell paid the Govt £2.7bn.

### **What do we want?**

So – how do we change this reliance on fossil fuels and move to a world where we avoid the worst impacts of climate change?

The Scottish Government has committed to introducing a new climate change bill before the end of June 2018, with the bill expected to become law within a year. The SNP's 2016 manifesto promised that this bill would implement the Paris Agreement, meaning it needs to set targets in line with keeping temperature increases below 2 degrees and pursuing efforts to keep them below 1.5 degrees.

WWF Scotland and Friends of the Earth Scotland are members of Stop Climate Chaos Scotland – a coalition of over 50 organisations representing at least 1.5 million people.

We're campaigning for a strong new climate change bill which helps to limit global temperature increases to 1.5 degrees.

### **Scottish Government**

66% reduction by 2030

90% reduction by 2050

No new policy action

## **Stop Climate Change Scotland**

77% reduction by 2030

100% reduction by 2050

New policy action on;

- 1) Homes
- 2) Transport
- 3) Farming

Aligning budgets with climate targets

### **In a bit more detail**

77% reduction by 2030

100% reduction by 2050 at the latest (this is also known as “net zero”)Aligning budgets with climate targets

1. Homes (EPC C by 2025)
2. Transport (phase out petrol & diesel by 2030)

### **New policy action on;**

1. Farming (manage nitrogen better)
2. Just Transition Commission
3. Intergenerational justice
4. Consumption emissions
5. 20% of land organic by 2030
6. Decarbonise energy
7. Stop digging up peat
8. Embed climate justice

The 77% target for 2030 is consistent with the idea of halving our emissions every decade (known as the “carbon law”) and it’s consistent with various equity models which assign a greater share of emissions reductions to countries which have historically been high emitters and which have the resources to decarbonise more quickly than other nations.

The 100% target, known as net zero, still assumes that there will be some greenhouse gas emissions by 2050, for example from farming. However, these would be balanced out by what’s known as “negative emissions”. This is where emissions are absorbed, either naturally via things like planting trees or protecting seabeds that absorb carbon, or through emerging technologies such as carbon capture and storage.

Around the world, other countries are either setting or thinking about setting their own “net zero” targets. Sweden already has one – they aim to be net zero by 2045 – and other places from Catalonia to New Zealand and from Costa Rica to the Marshall Islands are either planning targets or already working towards meeting them. In Europe, the European Parliament has voted to set a net zero target for 2050.

Scotland has the chance to join this group of world leading nations and reassert its role as a global leader on climate change.

1. Homes - we're calling for all homes across Scotland to be insulated and kitted out with sustainable heat so that they meet an energy performance certification (EPC) rating of at least C by 2025. We reckon that would save the best part of a million tonnes of carbon, lift hundreds of thousands of people out of fuel poverty and deliver tens of millions in savings for the NHS every year as well as creating thousands of jobs.
2. Transport – we've been calling for the Government to phase out petrol & diesel cars and vans by 2030. In the 2017 Programme for Government they committed to doing this by 2032 and have announced plans to double the funding for walking and cycling infrastructure as well as various funds and programmes to support the roll out of electric vehicles.
3. Farming – we want to see the Government start counting how much nitrogen is used, particularly in farming where it's an important fertiliser. Nitrogen is much worse for climate change than carbon dioxide and it also pollutes our air and water. We're just asking government to work out how much is used and where, so that in time, it can be better managed.
4. Just Transition Commission – we want the climate change bill to set up a commission to oversee the transition from oil and gas to a low carbon economy, ensuring that this is done in a way that protects workers and doesn't harm the poorest in society
5. Intergenerational justice – we want young people to be part of the discussion with Government in how climate decisions are made, following the example of the Wellbeing of Future Generations Act in Wales.
6. Consumption emissions – our emissions don't just come from what we produce in Scotland, but from what we consume. That includes the food we consume from overseas as well as electrical goods and even fossil fuels from other countries. Looking at consumption emissions, Scotland's footprint has actually gotten bigger over the last 20 years, despite great progress on domestic emissions. We want the Government to measure and report on consumption emissions each year and set targets to reduce them.
7. 20% of land organic by 2030 – we want a fifth of Scotland's agricultural land to be organic by 2030, protecting our soils for future generations.
8. Decarbonise energy – we started the campaign calling for a target of 50% of all our energy needs across heat, electricity and transport to be met from renewables by 2030. The Scottish Government has since committed to meeting this target.
9. Stop digging up peat – our peatlands are great at absorbing carbon and helping in the fight against climate change, but when we dig up peat, and worse – when we burn it, it makes climate change worse. That means we need the Government to do more to protect Scottish peatlands and reduce the amount of peat we use from elsewhere.
10. Embed climate justice – We're calling on Government to embed the principle of climate justice in the new bill. That means that the richest countries and those which have done most to cause climate change (including Scotland) are the ones which carry the biggest burden of responsibility in fighting it, whilst supporting those nations which are often worst affected but have done least to cause it.

### **What is to be done?**

Around the world, people like us are fighting for greater action on climate change. Whether it's fighting fracking in Scotland or protesting pipelines in America, calling for more ambitious action to protect nature in Brazil or taking big money out of fossil fuels around the world.

It's activism like this, combined with a strong moral case for action and detailed credible science which have won some of the key battles in fighting climate change, and it's only through more of this kind of combined action that we'll really make a difference.

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The presentation was followed by a break out into three groups where everybody participated in the discussion