Briefing: Climate Change Bill, May 2018
A Nitrogen Balance Sheet for Scotland

When you think about greenhouse gases – what springs to mind?

You might immediately think of carbon dioxide, and you'd be right.

But there's another big offender too that we need to tackle; nitrous oxide which is 300 times more damaging to the climate than carbon dioxide. Nitrogen itself is not harmful but when nitrogen becomes nitrous oxide its dangerous.

One of the key things we'd like the Scottish Government's new Climate Change Bill to address is nitrogen, and we're calling for the Government to create a Nitrogen Balance Sheet for Scotland which has specific targets set by 2020.

That means creating a nationwide picture of the country's nitrogen consumption and emissions as well as recommending ways for us to cut down.

Nitrogen: why we should be worried

So where is all of this nitrogen coming from? One big source is farming. In Scotland, the agricultural sector accounts for nearly a quarter of our greenhouse gas emissions, mainly as nitrous oxide and methane, rather than carbon dioxide.

What happens?

Nitrogen is a key ingredient in chemical fertilisers which are used on farms to help crops and grass grow. But when too much fertilizer is spread onto the fields or it's used poorly, nitrous oxide is released into the air as a gas, or dissolved nitrogen runs into waterways causing water pollution.

Sadly, this happens all too often. In 2015, over 160,000 tonnes of excess nitrogen fertiliser was used on Scottish farms.

Not only did this pollute our water and release an unnecessary amount of nitrous oxide, a dangerous greenhouse gas, but it also resulted in unnecessary carbon emissions being released when the nitrogen fertiliser was manufactured.

A win-win solution

Monitoring and reducing the amount of nitrogen we use in Scotland through a Nitrogen Balance Sheet is really a no brainer.

Farmers will still be able to use fertilisers, but they won't be spending more money than they need, and a Nitrogen Balance Sheet could also encourage farmers to switch to alternative fertilisers, such as composts made from recycled food wastes. Other industries could be encouraged to follow suit and reduce their nitrogen consumption too; from fisheries to forestry.

And we'd all benefit too, not only from reduced emissions but also from cleaner water, reduced water treatment costs and less food going into landfill sites.

Find out more about the other things we'd like to see in the new Climate Change Bill.