Hello, we are the County Climate Impact Team.

The effects of Climate change are often portrayed as deserts encroaching on Africa, polar bears struggling for survival on melting ice caps or orphaned orangutans in Borneo. In the UK, there is perhaps a sense that we will escape the worst of the negative effects of climate change. In fact, there are some who quite like the thought of warmer summers and not having to fly to Spain!

We wanted to communicate the local impacts of climate change in a way that hasn’t been done widely before, by trying to inform the UK public about likely impacts which would have relevance for their day-to-day lives, and hopefully change their behaviours to help minimise climate change.

Visualising the impacts of climate change is useful for governments and helps inform policy. We focussed on a county council resolution to make outcomes more actionable by local government.

So what’s out there already? The BBC has a tool (based on Met Office data) where you can input your postcode and it displays statistics and graphics on how the climate and weather might change where you are. The innovation from the first of our sub teams has taken this a step further, looking at the number of heatwave events different counties might see, as shown here on the left. We found that by 2030 if you live in y, you could start to see x heatwave events a year, compared to z in 1995.

Heatwaves can have a negative impact on your health, causing heat stroke, dehydration or even death. Future work could involve quantifying the impact of heatwaves, including the expected number of excess deaths and the additional burden on the NHS, which would in turn inform practical action such as boosting NHS staffing levels over the summer. ~~We could also make the modelling more accurate by accounting for the urban heat island affect for example.~~ We could also consider the vulnerability of different counties by looking at poverty rates to identify areas where people are least capable of coping in heatwaves. ~~This work could also be extended to look at cold snaps.~~

What the BBC tool doesn’t tell you is the impact of climate change on everyday life. The options here are endless – ranging from the cost of home insurance and how many hours a day you can comfortably exercise outside to possible rises in mosquito-borne diseases in the UK. Our second sub team decided to focus on something that is a big part of our everyday lives - plants. There has been a fair amount of research done on the agricultural impact of climate change, but to our knowledge, little on how the average back garden may change. We think this information would be both tangible and captivating to the UK public and would change behaviours to help minimise climate change.

Plants have a hardiness rating, as defined by the Royal Horticultural Society. Using this rating alongside Met Office climate projection data, we developed the graphic on the right that shows the minimum plant hardiness rating that could grow in that county. Looking at temperature requirements only, we found that by 2060, if you live as far North as Stirling in Scotland, you could potentially start to grow lemon trees in your back garden for the first time as the winters would be less harsh. Hot chillies could grow in Cornwall, England. Some of these predictions could be perceived as a positive change, and although this is an important part of the climate change story that it’s not all negative necessarily, we felt this might not inspire action. The obvious next step for this innovation would be to visualise the opposite - looking at plants that wouldn’t survive in your back garden through the warmer summers we’re expecting to have in the future.

Throughout this process we learned just how many areas of our lives would be impacted by climate change. We also learned more about finding analyses, open data and easy to digest information on these impacts.

Our innovations over the last couple of days are steps towards our long-term vision of a one-stop-shop application like the BBC tool, where the UK public can input their postcode and be informed about how climate change will affect their everyday lives. Being shown how climate change will impact each and every one of us at a local level, and with all the impacts being shown together in one place will help inspire actions to fight climate change and assist us to achieve the UN’s Sustainable Develop Goals even in a changing world.

Finally, I’d like to thank everyone on my team for all their hard work and proactive attitude, it’s been an absolute pleasure working with you all.

Thank you.

**Links:** https://www.bbc.co.uk/news/resources/idt-d6338d9f-8789-4bc2-b6d7-3691c0e7d138