

Scottish Climate Action Co-Benefits Conversation Guide

This is intended as a data-informed conversation guide for Scottish policy makers and community advocates to better understand Climate Action co-benefits in their communities. The focus is on the social justice aspects of climate action benefits.

First, what are Climate Action Co-Benefits?

Climate action delivers far-reaching social, economic, health, and environmental benefits, which the Edinburgh Climate Change Institute has modelled and monetised across 11 co-benefit types to show the wider value of the UK reaching net zero by 2050. See the back page for more detail.



How will this guide work?

We'll start by talking about the co-benefits overall, and then we'll get more specific, eventually looking at the co-benefits from a social justice lens.

How do we look at co-benefits and social justice?

We combined the co-benefits data with the Scottish Index of Multiple Deprivation (SIMD), which ranks every neighbourhood in Scotland from most to least deprived based on factors like income, health, education, housing, crime, and access to services.



Our findings in summary

If you don't read past this page, here's what we would like you to take away and discuss:

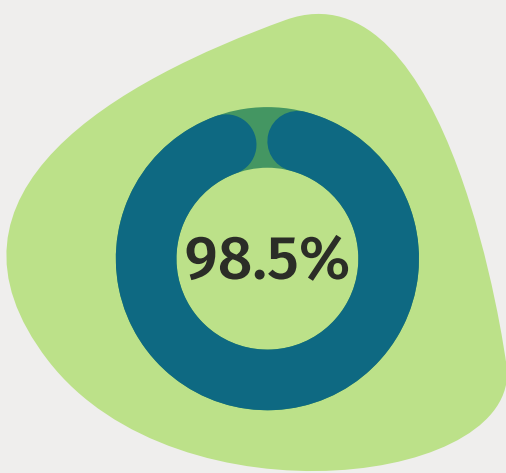
- Climate action is expected to benefit nearly every community in Scotland, regardless of privilege, and that's great.
- However, communities of greater privilege are expected to experience **more** climate action benefits than less-privileged communities. From a social justice perspective, that's not what we hope to see.
- Scotland's most deprived communities can expect to feel several of the 11 co-benefits more strongly than more privileged areas, especially those related to environmental health.
- If we want climate action to support social justice, we need to shape policies so everyone shares the benefits fairly.

Climate Action Co-benefits and Social Justice

By the numbers

So let's dive in...

We get it, data can seem clinical or detached from people's lived experience, but we've found some surprising insights that could improve the lives of people in your community. Social justice, data, and conversation belong together.



% of neighborhoods that are expected to experience co-benefits from climate action

£12,655,158,062

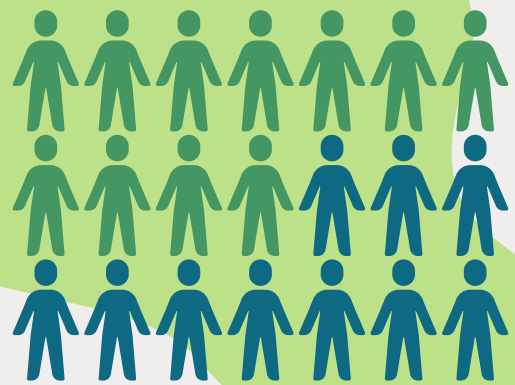
Net positive financial impact of climate actions expected in Scotland by 2050

Now let's combine the climate action benefits with the Scottish Index of Multiple Deprivation (SIMD) to see how the benefits are expected to flow.

Groups of 10

Let's start by thinking of the nearly 7,000 communities as 10 equal-sized groups based on their SIMD rank.

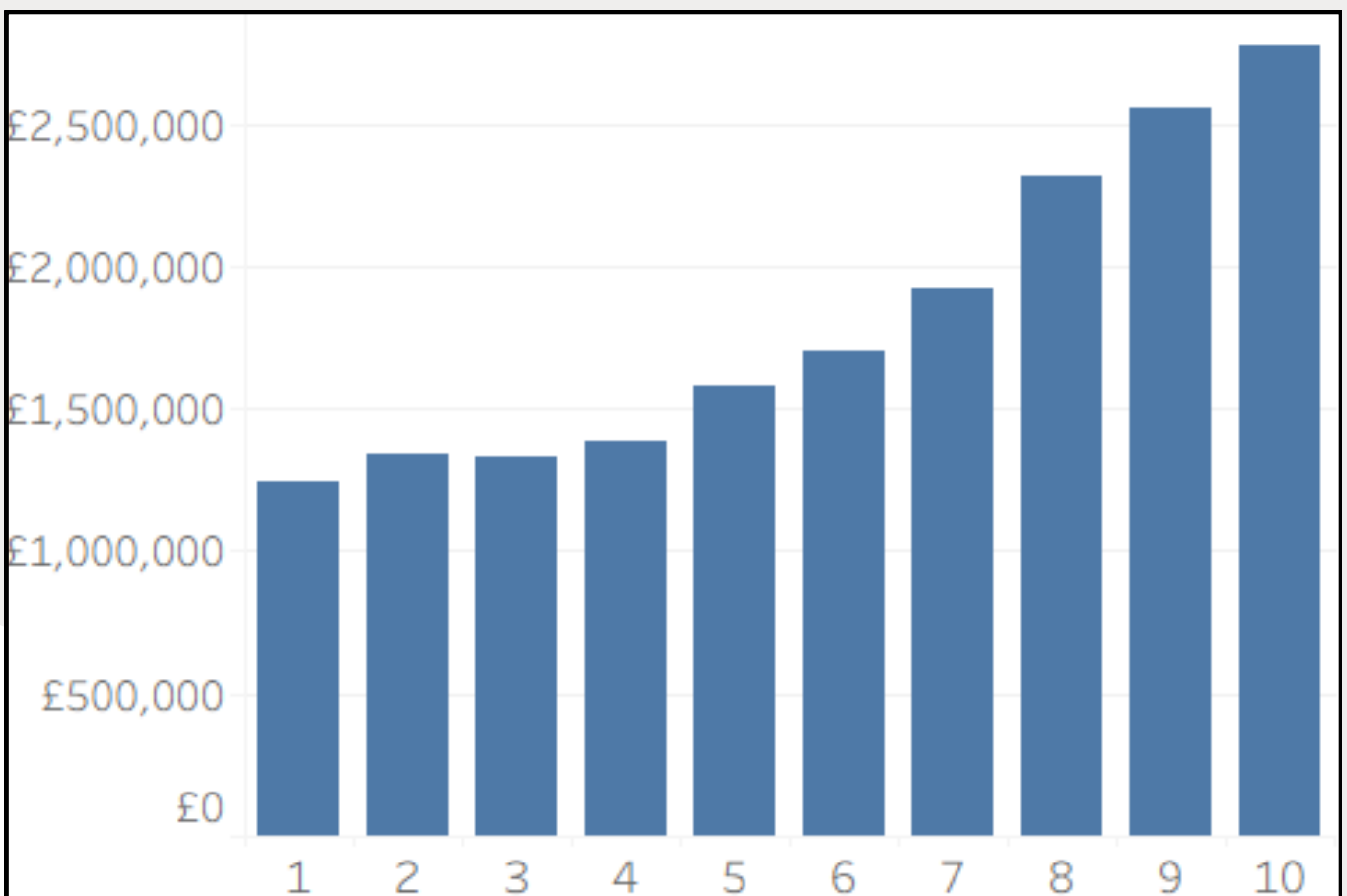
1 = most deprived.
10 = least deprived



All Groups Benefit

If we look at average co-benefit per community in each of the 10 groups, all groups should expect more than one million pounds sterling in benefits.

Chart 1



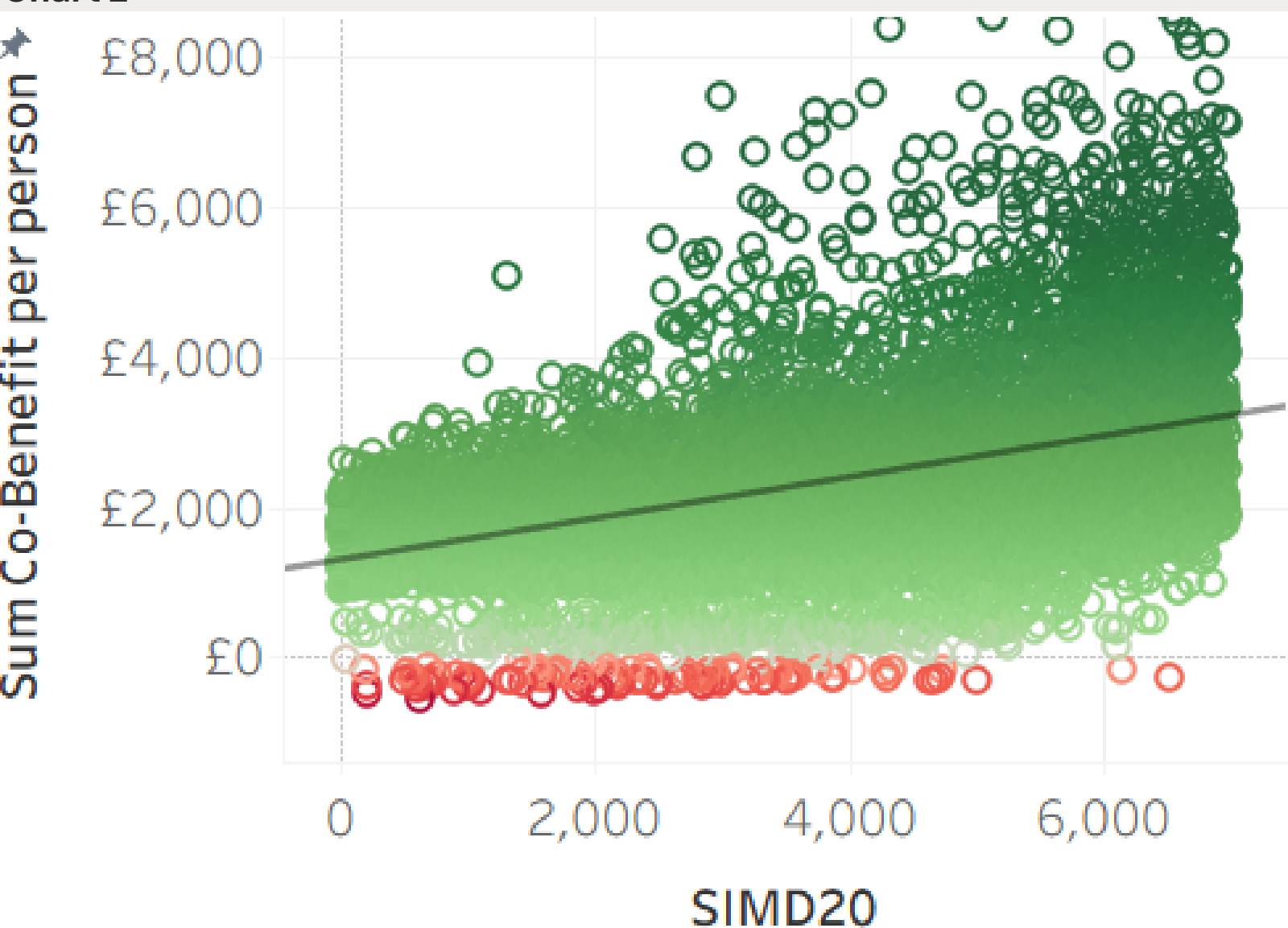
But the Co-Benefits might not flow evenly across groups

As you saw in the previous chart, while all groups benefit, **groups with more privilege benefit more than others**. Let's dive into that.

Privilege and Co-benefits

Every dot in the chart below represents a community in Scotland and two pieces of information: its SIMD score (lower = more deprived) and its co-benefits per person. The upward trending line shows us that as privilege increases, so do total co-benefits. From a social justice perspective, that's not what we'd want to see. We want climate action to benefit everyone the same.

Chart 2



Colors in the chart above

- Green means more co-benefits per person.
- Red means less.

But let's not stop there

If we look at the 11 individual co-benefits, the story is more nuanced. Here is the list of all the co-benefits. There will be a detailed description of them on the final page.

- **Air quality**
- **Congestion**
- **Dampness**
- **Diet change**
- **Excess cold**
- **Excess heat**
- **Hassle costs**
- **Noise**
- **Physical activity**
- **Road repairs**
- **Road safety**

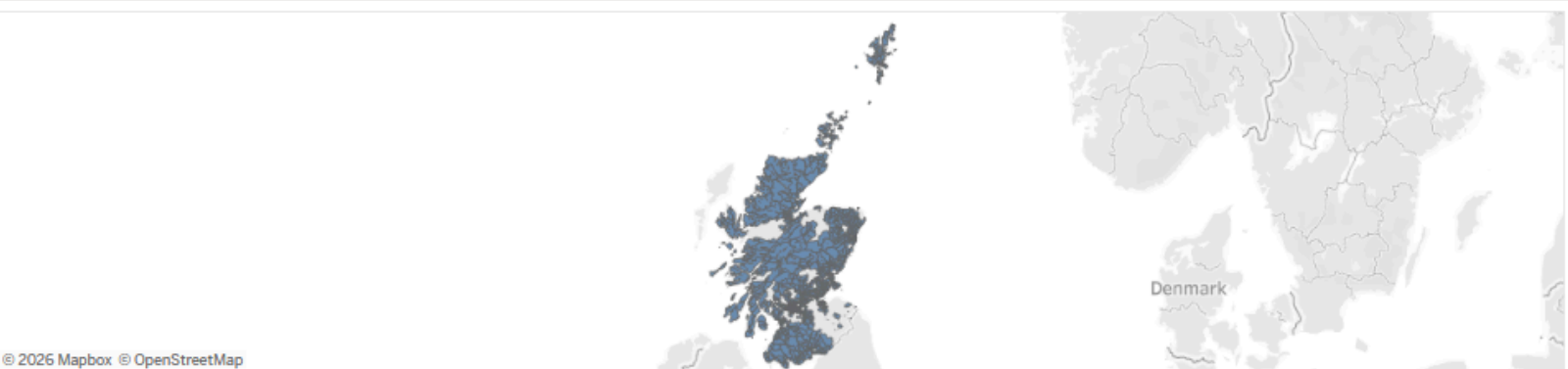
Scotland's most deprived communities can expect to feel several of the 11 co-benefits more strongly than more privileged areas, especially those related to environmental health. See the chart below to see which co-benefits favour the least and most privileged communities.

Chart 3

| Co-benefit | Favours least privileged communities (SIMD 1-3) | Favours most privileged communities (SIMD 8-10) |
|-----------------------------------|-------------------------------------------------|-------------------------------------------------|
| Air quality | Yes | |
| Congestion (harm) | Yes | |
| Dampness | Yes | |
| Diet change | | Yes |
| Excess cold | | Yes |
| Excess heat | | Yes |
| Hassle costs (harm) | Yes | |
| Noise | Yes | |
| Physical activity | | Yes |
| Road repairs (harm) | Yes | |
| Road safety (harm) | Yes | |
| Total (sum of co-benefits) | | Yes |

Using a social justice lens, climate action is at present an imperfect tool in Scotland because total co-benefits will go disproportionately to more prosperous communities. We should expect government benefits to flow equitably to all communities, regardless of prosperity or deprivation. Use the linked Beta Climate Action Community Conservation Map Tool below to see how your community compares to the communities expected to receive the most climate action co-benefits. Desktop only in beta.

<https://tinyurl.com/muhpx6n4>



BETA Climate Action Community Conversation Map Tool

Navigate to your community on the map to see your local Index of Multiple Deprivations and Climate Action Co-Benefits. Use this tool to compare your values to those of the top 10% of least deprived communities in Scotland (aka 10 SIMD Decile). Social justice principles seek to have all communities equitably benefit from public policy.

| SIMD Decile | Air Quality | Congestion | Diet Change | Excess Cold | Excess Heat | Noise | Road Repairs | Road Safety | Sum Co-Benefits | |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|-----------------|-----------------|
| 10 | £564,791 | -£21,265 | £59,786 | £131,925 | £1.60 | £949,412 | -£1,612 | -£11,406 | £2,703,194 | |
| Neighborhood | IMD20 | Air Quality | Congestion | Diet Change | Excess Cold | Excess Heat | Noise | Road Repairs | Road Safety | Sum Co-Benefits |
| Abbey Parks North | 2,759 | £387,001 | -£10,915 | £40,986 | £60,236 | £1.00 | £693,854 | -£828 | -£5,855 | £1,171,374 |

Glossary

What are Climate Action Co-Benefits in detail

Climate actions are designed to lower greenhouse gas (GHG) emissions but the gains for society reach further. The actions we need to undertake to reduce fossil fuel emissions often have significant and positive impacts on health, economy and society, as well as the environment. The team at Edinburgh Climate Change Institute (ECCI) have been modelling these wider benefits ('co-benefits') to make the positive case for climate action.

These values are estimates of these wider socio-economic impacts from the UK reaching net zero by 2050. The data are monetised figures, representing the value to individuals and society across 11 co-benefit types from following the actions set out by the UK Climate Change Committee.

For more information, go to the UK Co-Benefits Atlas website.

The 11 Climate Action Co-Benefits

- **Air Quality:** Benefits of reduced air pollution due to lower use of carbon-intensive heating and transport, valued in improved health and reduced building damages.
- **Congestion:** Impacts of reduced or increased traffic congestion resulting from changes in road use.
- **Dampness:** Benefits from reductions in damp housing, reflected in improved health and wellbeing.
- **Diet Change:** Health improvements from increased plant-based dietary shifts.
- **Excess Cold:** Benefits of warmer homes through insulation and efficient heating systems, valued through avoided health and wellbeing damages.
- **Excess Heat:** Benefits of improved ventilation and cooling reducing overheating risk in homes.
- **Travel Time:** Costs associated with increased journey durations where shifts away from private vehicle use occur. Referred to as 'longer travel times' in UK Co-Benefits Atlas.
- **Noise:** Benefits of reduced noise pollution from modal shift or quieter vehicles.
- **Physical Activity:** Health and longevity benefits from increased active travel (walking and cycling).
- **Road Repairs:** Impacts on road maintenance requirements due to changes in road usage.
- **Road Safety:** Impacts on collision incidence and risk associated with changes in vehicle travel.

What do we mean when we say “communities”?

When we say “communities” in this guide, we mean Scottish data zones. They are small neighbourhood-sized areas of about 500–1,000 people that the government uses to report local statistics consistently across the country.

What are our sources of data?

- Co-Benefit data comes from the UK Co-Benefit Atlas team. Includes population
- SIMD data comes from data.gov.uk, search for index of multiple deprivation December 2020 lookup in sc. This is the most recent SIMD data as of Jan 2026
- Datazone shapefiles comes from data.gov.uk, search Data Zone Boundaries 2022

Our analyses

- Chart 1 - average co-benefit per datazone in each of the 10 SIMD deciles
- Chart 2 - each datazone's SIMD score (lower = more deprived) vs climate action co-benefits per person. r-squared is 0.2 (weak but present relationship between the variables) and p value is .000001 (statistical significance test passed)
- Chart 3 - was created by analyzing the average values of the 11 co-benefits of datazones in the ten SIMD deciles and grouping deciles into least privileged (1-3 decile) and most privileged (8-10)