

Presentation for Surrey Chambers Sustainable Development & Climate Change post-COVID

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Ian Christie
CES, University of Surrey



**Centre for
Environment and
Sustainability**

Images: Ian Christie
unless other source given.



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How things stand: Climate Crisis, Nature Crisis, UN Sustainable Development Goals

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS

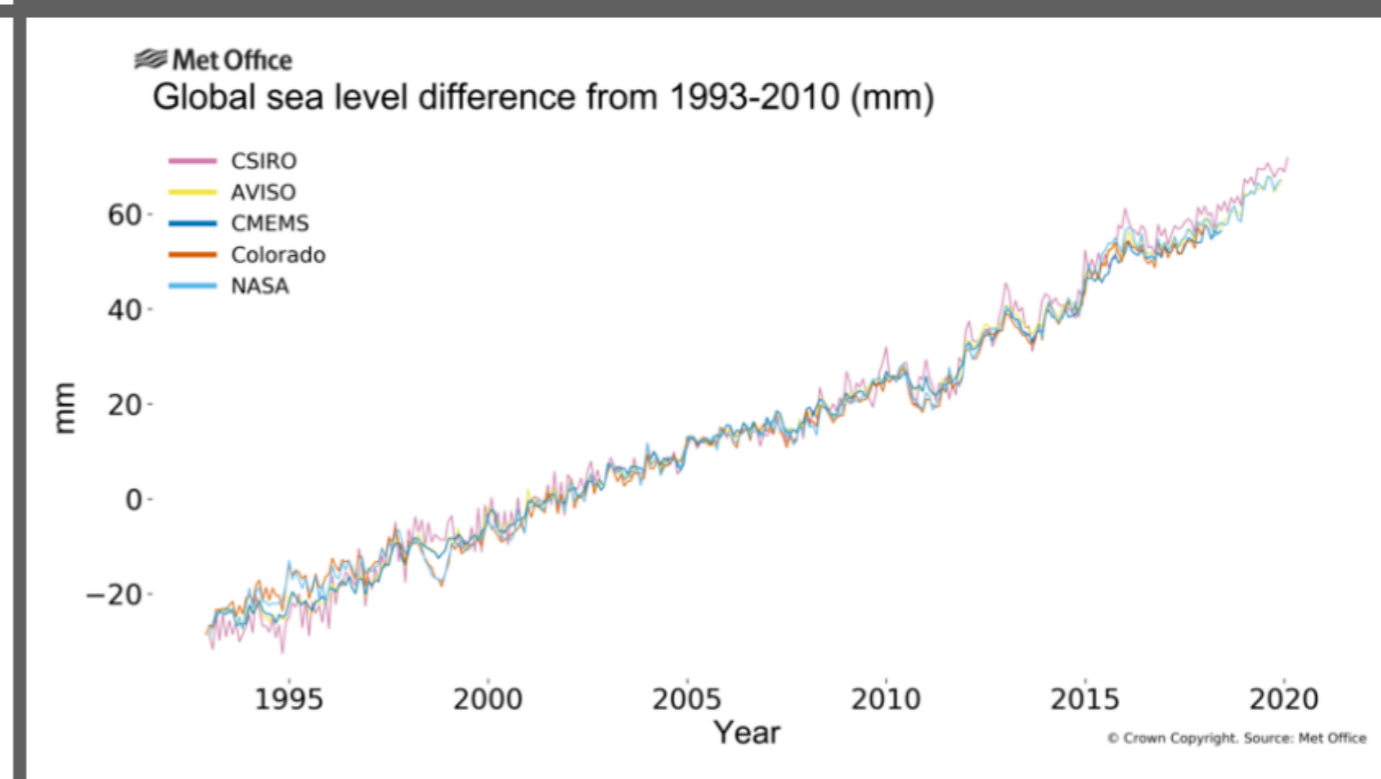
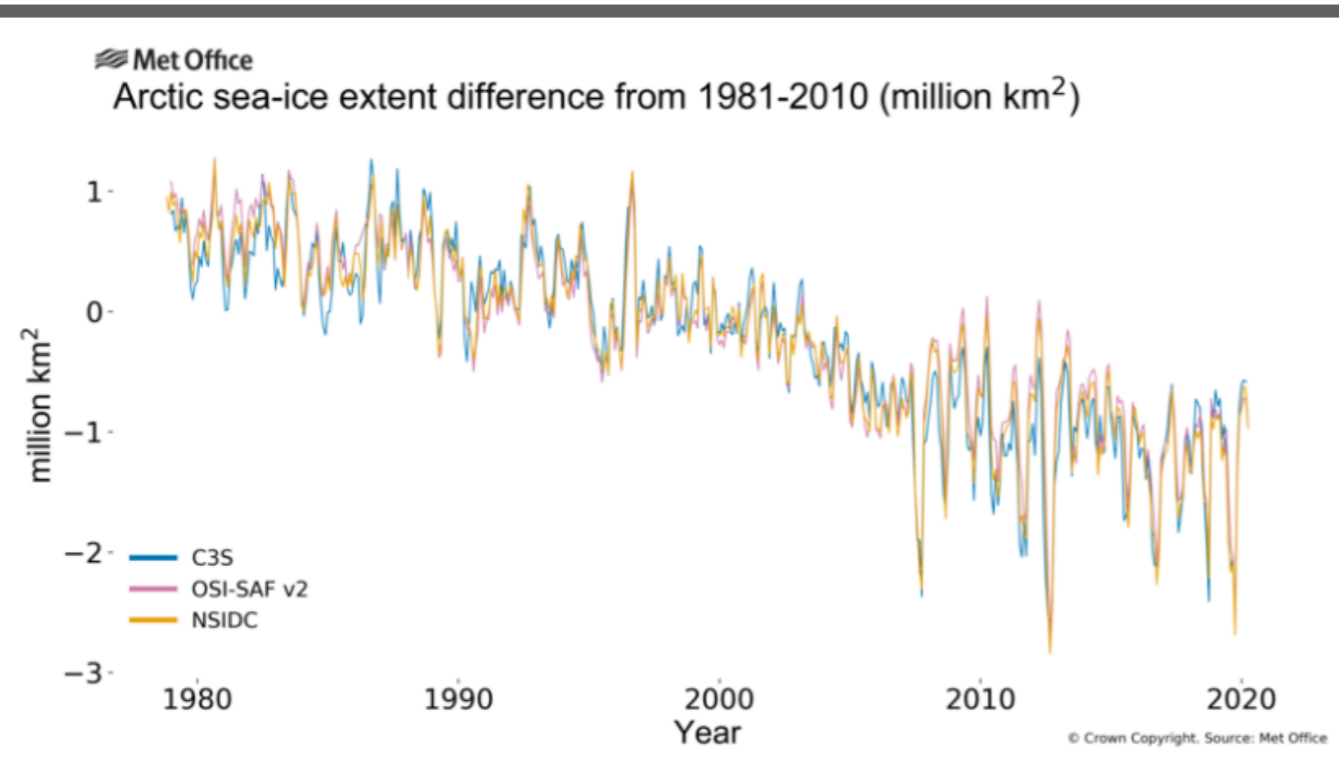
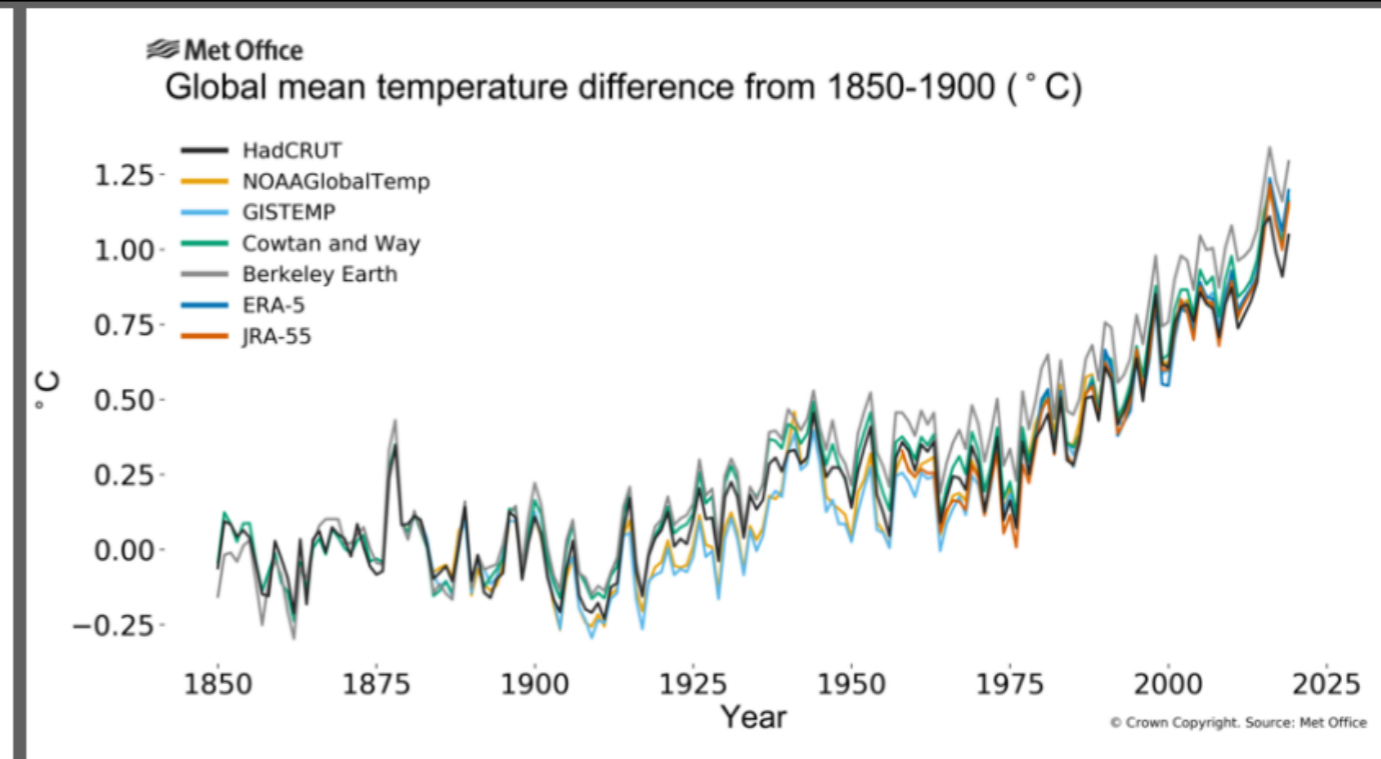
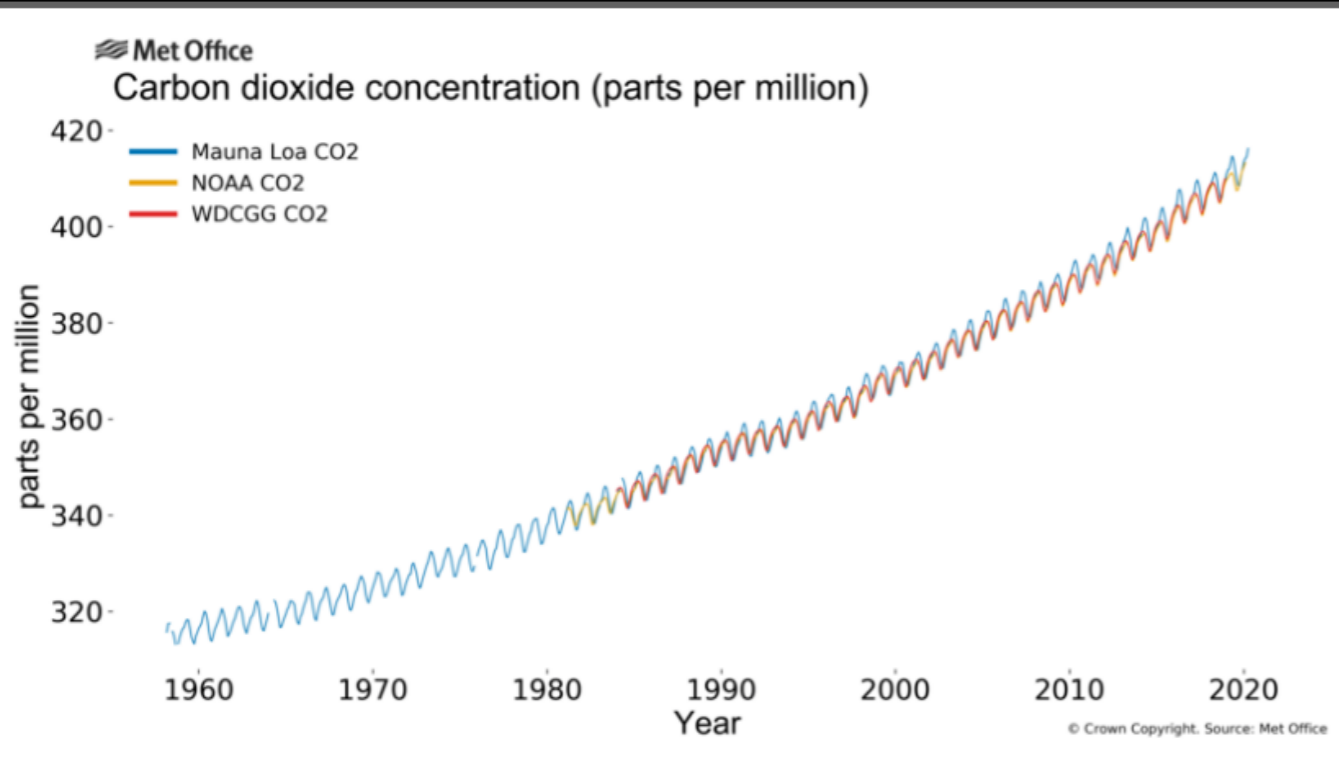



SUSTAINABLE DEVELOPMENT GOALS

How things stand: Climate crisis

Met Office Climate Dashboard

<https://www.metoffice.gov.uk/hadobs/monitoring/dashboard.html>



The Heat is On.

“Adults keep saying: “We owe it to the young people to give them hope.” But I don’t want your hope. I don’t want you to be hopeful. I want you to panic. I want you to feel the fear I feel every day. And then I want you to act. I want you to act as you would in a crisis. I want you to act as if our house is on fire. Because it is.”

Greta Thunberg speaking at the World Economic Forum, Davos, January 2019

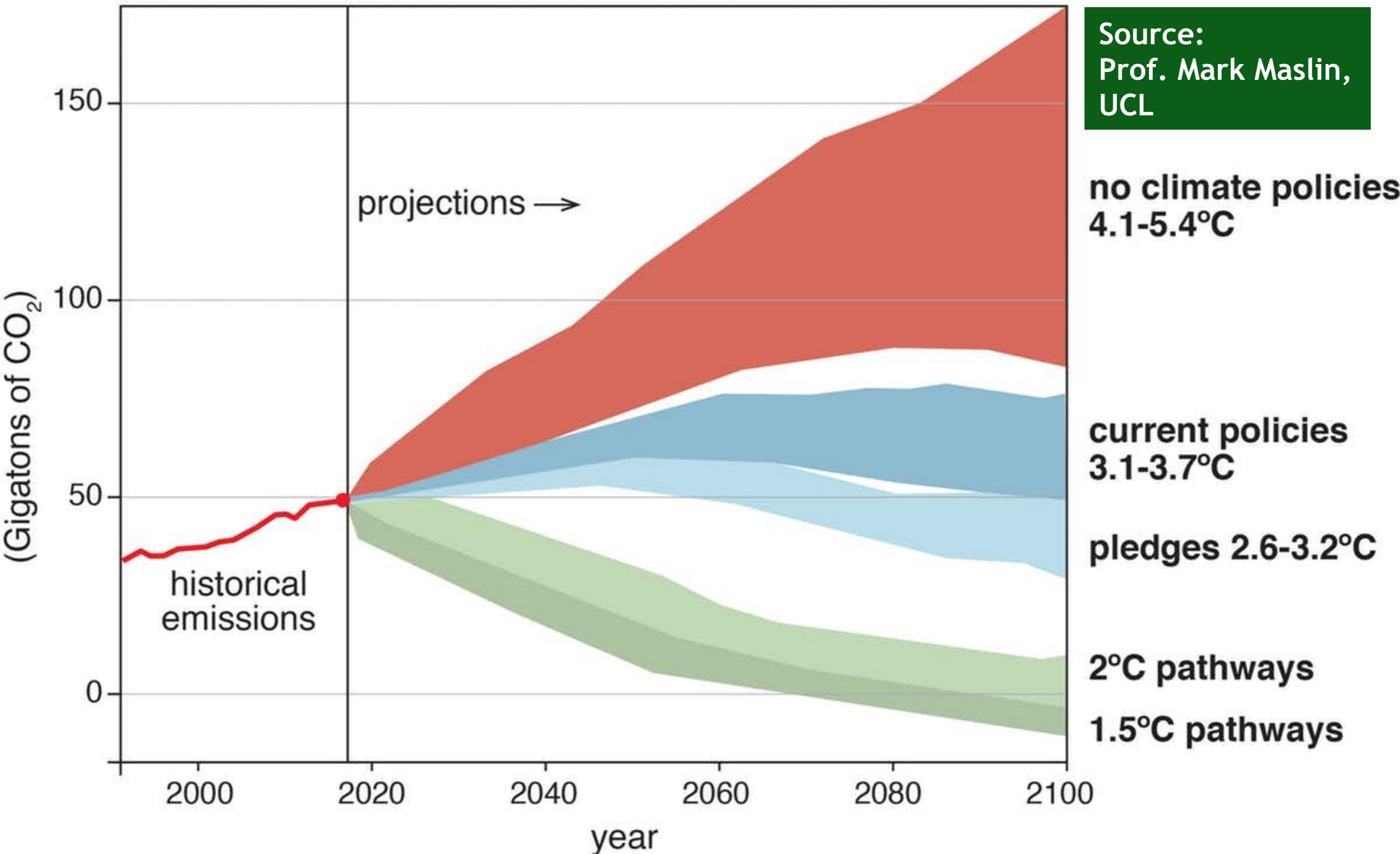
Source: <https://www.theguardian.com/environment/2019/jan/25/our-house-is-on-fire-greta-thunberg16-urges-leaders-to-act-on-climate>

Climate activist and teenage school student Greta Thunberg



The Emissions Reduction Gap

Past and future carbon emissions



“The UK should set and vigorously pursue an ambitious target to reduce greenhouse gas emissions (GHGs) to 'net-zero' by 2050, ending the UK's contribution to global warming within 30 years. Reflecting their respective circumstances, Scotland should set a net-zero GHG target for 2045 and Wales should target a 95% reduction by 2050 relative to 1990.

A net-zero GHG target for 2050 will deliver on the commitment that the UK made by signing the Paris Agreement. It is achievable with known technologies, alongside improvements in people's lives, and within the expected economic cost that Parliament accepted when it legislated the existing 2050 target for an 80% reduction from 1990.

However, this is only possible if clear, stable and well-designed policies to reduce emissions further are introduced across the economy without delay. Current policy is insufficient for even the existing targets.

A net-zero GHG target for 2050 would respond to the latest climate science and fully meet the UK's obligations under the Paris Agreement.”

UK Committee for Climate Change, *Net Zero: The UK's contribution to stopping global warming*, UKCCC, London, May 2019, p.12

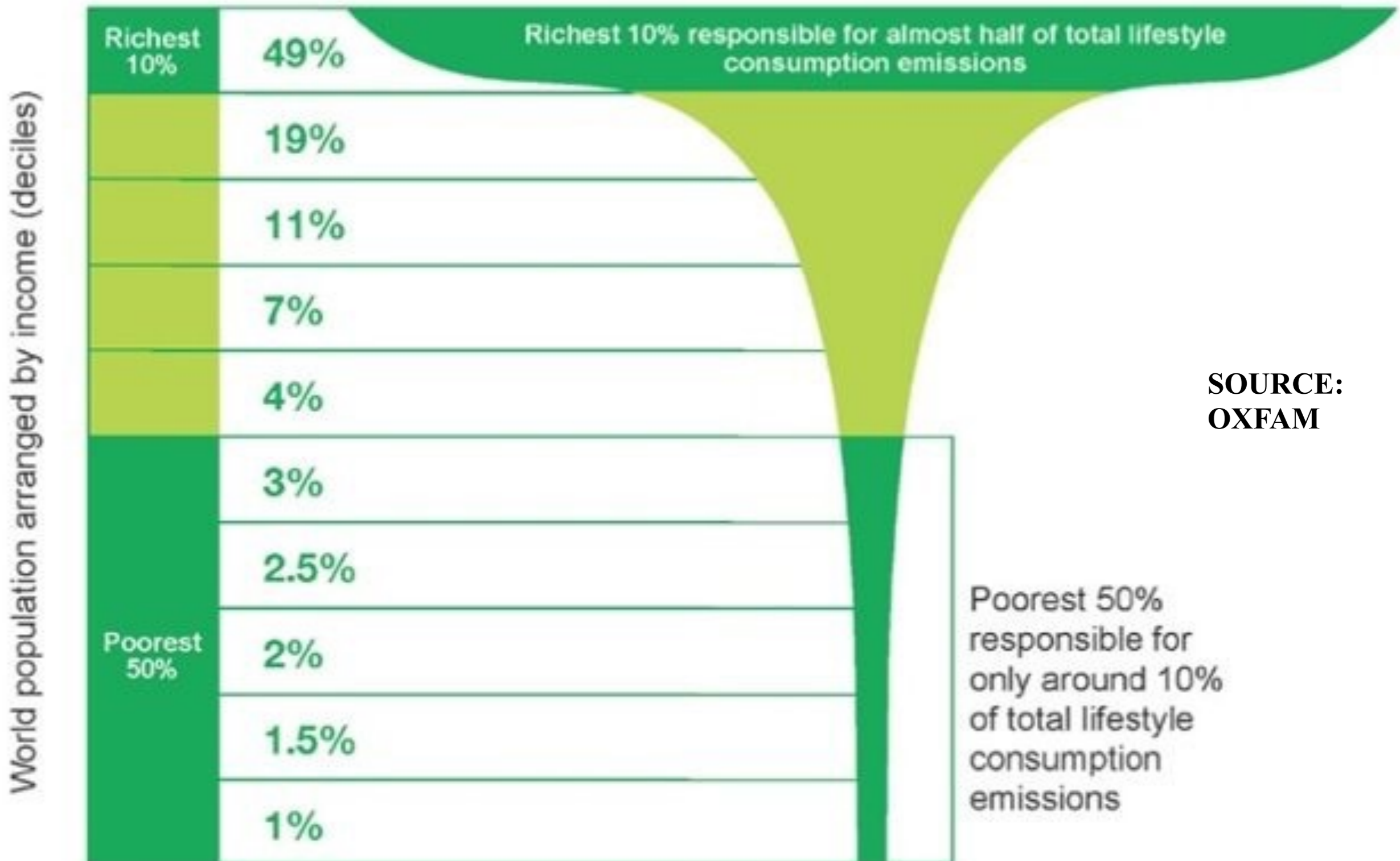


Tim Jackson in *Zero Carbon Sooner* (CUSP, 2019):

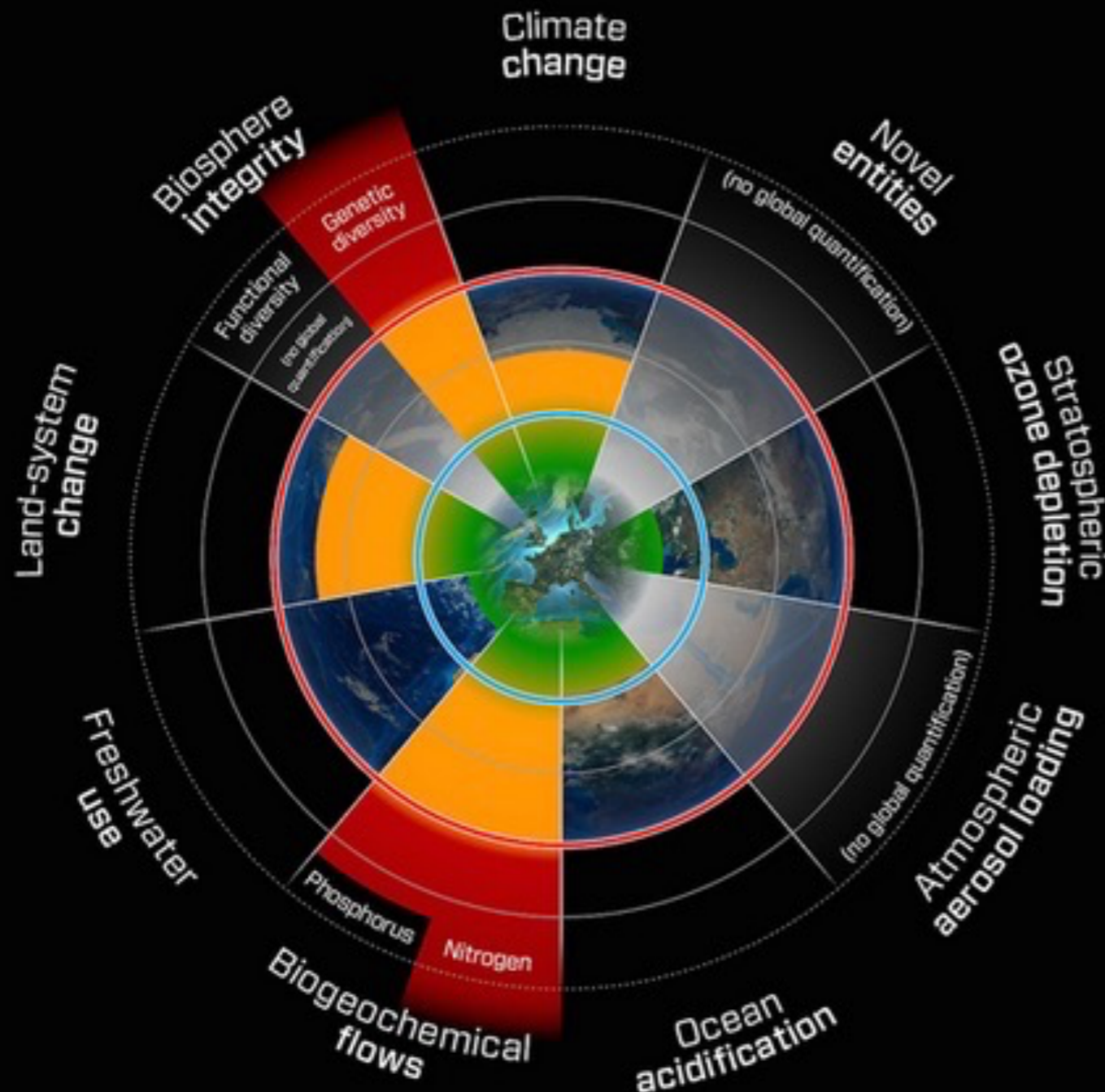
“Policy must specify both a target date and an emissions pathway. **For a linear reduction pathway not to exceed the carbon budget the target year would have to be 2025.** Nonlinear pathways, such as those with constant percentage reduction rates, have a higher chance of remaining within the available budget provided that the reduction starts early enough and the reduction rate is high enough. It is notable that reduction rates high enough both to lead to zero carbon (on a consumption basis) by 2050 and to remain within the carbon budget require **absolute reductions of more than 95% of carbon emissions as early as 2030.** On this basis, the paper argues in favour of setting a **UK target for net zero carbon emissions by 2030 or earlier,** with a maximum of 5% emissions addressed through negative emission technologies.” (My emphasis.)



Percentage of CO₂ emissions by world population



**SOURCE:
OXFAM**



■ Beyond zone of uncertainty (high risk)
■ In zone of uncertainty (increasing risk)
■ Below boundary (safe)
■ Boundary not yet quantified

Image source:
Stockholm
Resilience
Centre

one Extinction: The Facts

Home Clips



▶ Watch now

With a million species at risk of extinction, David Attenborough explores how this crisis of biodiversity has consequences for us all, including putting us at greater risk of pandemic diseases.

11 months left to watch

🕒 59 minutes

- BBC programme *Extinction: the facts* (September 2020)
- <https://www.bbc.co.uk/programmes/m000mn4n>

Source: IPBES: <https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>

DRIVERS

INDIRECT DRIVERS

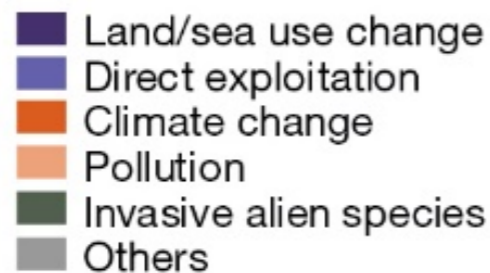
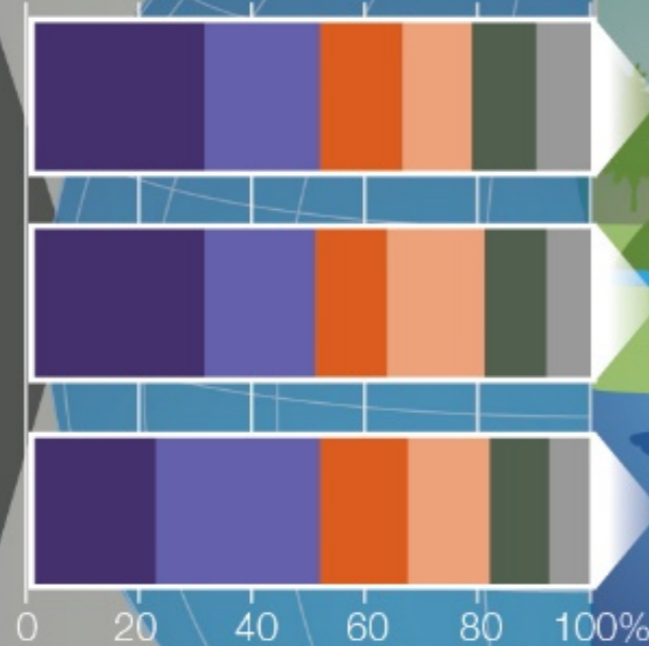
Demographic and sociocultural

Economic and technological

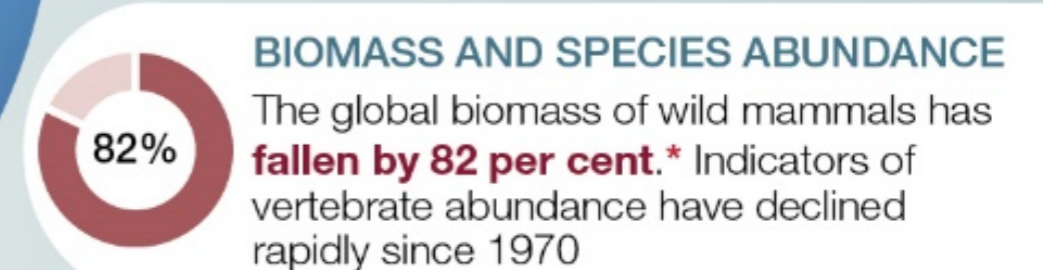
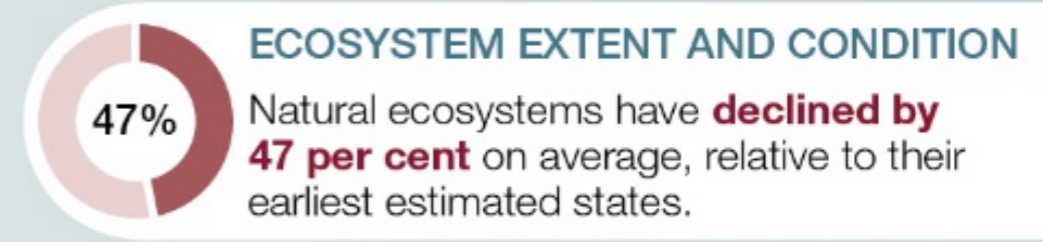
Institutions and governance

Conflicts and epidemics

DIRECT DRIVERS



EXAMPLES OF DECLINES IN NATURE



* Since prehistory

SDGs: the 2030 agenda for the world

Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G. (2019): Sustainable Development Report 2019. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

“Once again, Nordic countries – Denmark, Sweden, and Finland - top the SDG Index. Yet, even these countries face major challenges in implementing one or several SDGs. **No country is on track for achieving all 17 goals with major performance gaps even in the top countries on SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life Below Water) and SDG 15 (Life on Land).** Income and wealth inequalities, as well as gaps in health and education outcomes by population groups also remain important policy challenges in developing and developed countries alike.” See <https://spark.adobe.com/page/ipileuVKKZCmu/>

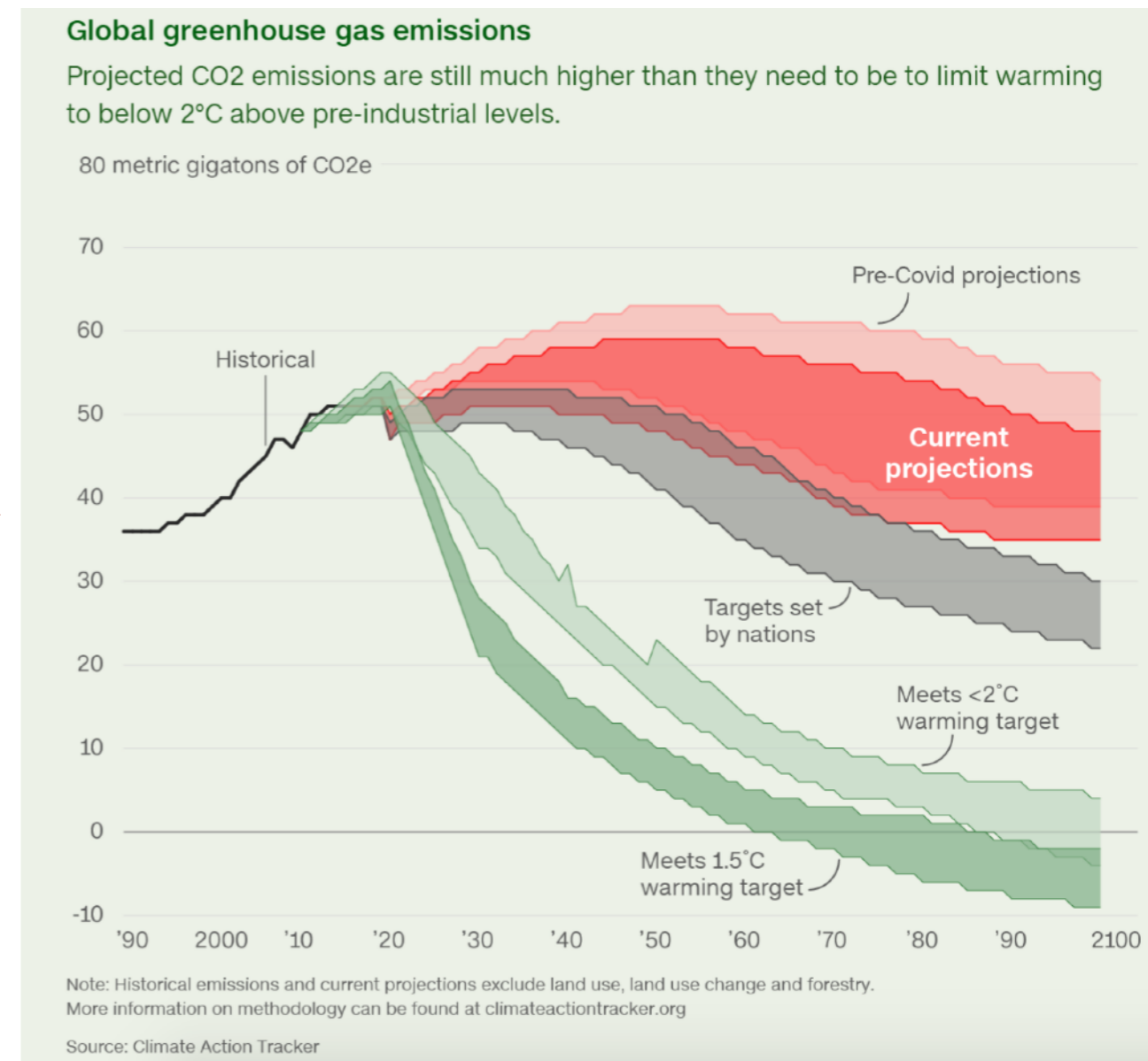


- **“The Sustainable Development Goals Report 2020 brings together the latest data to show us that, before the COVID-19 pandemic, progress remained uneven and we were not on track to meet the Goals by 2030. Some gains were visible: the share of children and youth out of school had fallen; the incidence of many communicable diseases was in decline; access to safely managed drinking water had improved; and women’s representation in leadership roles was increasing. At the same time, the number of people suffering from food insecurity was on the rise, the natural environment continued to deteriorate at an alarming rate, and dramatic levels of inequality persisted in all regions. Change was still not happening at the speed or scale required. Now, due to COVID-19, an unprecedented health, economic and social crisis is threatening lives and livelihoods, making the achievement of Goals even more challenging.” (My emphasis.)**

The Sustainable Development Goals Report 2020

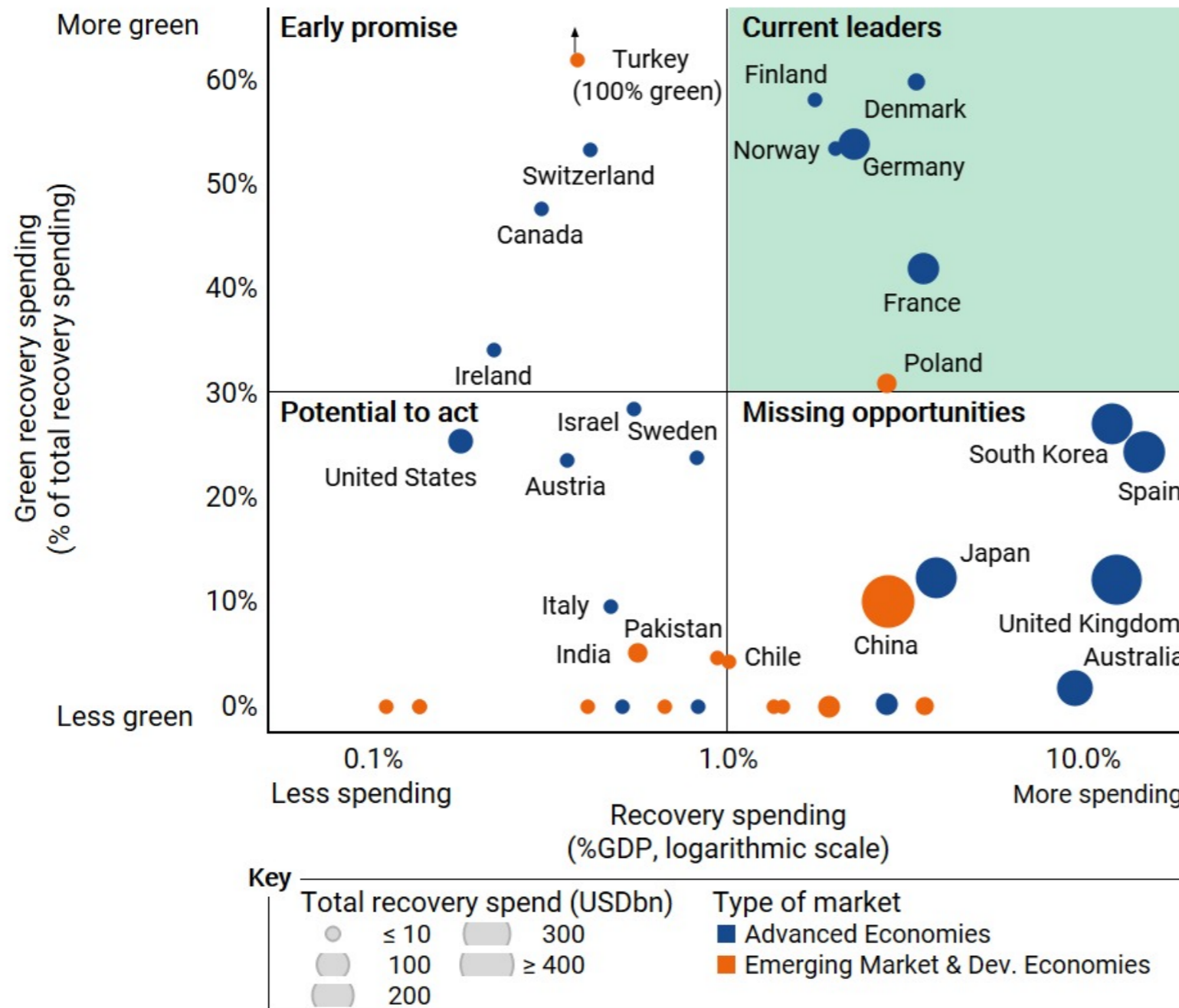


- “...the climate effect of the immediate COVID-19- related restrictions is close to negligible and lasting effects, if any, will only arise from the recovery strategy adopted in the medium term...Our work shows that the global temperature signal due to the short-term dynamics of the pandemic is likely to be small. **These results highlight that without underlying long-term system-wide decarbonization of economies, even massive shifts in behaviour only lead to modest reductions in the rate of warming.** However, economic investment choices for the recovery will strongly affect the warming trajectory by mid-century. Pursuing a green stimulus recovery out of the post-COVID-19 economic crisis can set the world on track for keeping the long-term temperature goal of the Paris Agreement within sight.”
- Source: P Forster et al (2020), “Current and future global climate impacts resulting from COVID-19”, *Nature Climate Change*, <https://doi.org/10.1038/s41558-020-0883-0>



- **Diagram source:**
- **Climate Action Tracker:**
- www.climateactiontracker.org

Climate crisis: wasting the Covid-19 recovery?



Source:
Brian J. O’Callaghan and Em Murdock, *Are We Building Back Better? Evidence from 2020 and Pathways to Inclusive Green Recovery Spending*, Global Recovery Observatory, University of Oxford for UNEP, Oxford, 2021

Figure 3. Green recovery spending as a percentage of total recovery spending, versus recovery spending as %GDP. Colour represents market type. Turkey’s recovery spending (0.43% of GDP; 100% green) is a commendable outlier, not accurately represented on the graph due to visual limitations. Many countries are clustered at 0% green recovery spending, from left to right on the figure: South Africa, Thailand, Malaysia, Egypt, Saudi Arabia, Argentina, Portugal, Nigeria, Peru, Iraq, Mexico, Mexico, Argentina, the Netherlands, and the Philippines. Countries with less than 0.1% recovery spending as %GDP do not feature and are listed in Appendix A. Sources: Global Recovery Observatory; interest rate data from OECD (2020c) and CEIC (2021).

UK: high ambition for action on climate and nature crises

Prime Minister Boris Johnson, foreword to *Integrated Review of Security, Defence, Development and Foreign Policy*, March 2021:

“In 2021 and beyond, Her Majesty’s Government will make tackling climate change and biodiversity loss its number one international priority. Under my chairmanship, the UN Security Council recently held its first ever high-level meeting on the impact of climate change on peace and security. The UK was the first advanced economy to set a net zero target for 2050. We will now begin an unprecedented programme of new investment, taking forward our ten-point plan for a green industrial revolution by funding British research and development in green technologies, and helping the developing world with the UK’s International Climate Finance.”

UK progress, strategies and commitments:

- Net Zero by 2050
- 28% fall in territorial emissions of GHGs 2008-18: G20 leader
- Industrial Decarbonisation Strategy
- Building Back Better from Covid-19
- COP26 co-chair and host
- UK Citizens’ Climate Assembly, 2020
- 25-Year Environment Plan
- 30% protected areas by 2030
- High ambition for halting Biodiversity loss by 2030
- Dasgupta Review for the Treasury on economics of biodiversity



Widespread welcome for UK ambition and commitments...

But...

- Cut in UK overseas aid as % of GDP
- National Audit Office reports (2020) criticise the pace and coherence of implementation of Net Zero and Nature strategies, and extent of engagement with public agencies, local government, business and the public on climate crisis
- These criticisms are echoed in 2020-21 cross-party Parliamentary Committee reports
- UK Government commitment to SDGs implementation at home has been criticised by Parliament and by civil society organisations
- UK has not met its own biodiversity conservation targets
- UK performs well on production emissions reduction but not when GHGs are seen from *consumption* perspective: we have exported carbon emissions and we re-import them
- The UK pandemic recovery package has been criticised for lack of focus on climate action and biodiversity
- Delays in key Bills - eg Environment Bill
- March 2021: still no UK Net Zero action plan ahead of COP26

‘Government has not set out clearly the roles of public bodies outside central departments in achieving net zero. Arm’s-length bodies, regulators and local authorities all have critical roles in the achievement of net zero. Our past work has shown that roles and responsibilities need to be clear and that the perspectives of different delivery bodies need to be incorporated into plans to achieve cross-cutting policy objectives. Local authorities will be key in the achievement of emissions reductions in the transport and housing sectors locally where the decarbonisation challenge will vary by location. But local government representatives we have spoken to have said there is a lack of clarity from central government on the role local authorities should play in achieving net zero.’

NAO, *Achieving Net Zero*, 2020, p9

- Successful COP this November
- *Walking the talk* in UK domestic policy on climate and nature
- Production of *credible Net Zero action plan* before COP26
- Taking seriously NAO, PAC and EAC critiques of climate and nature strategy implementation
- Embedding Net Zero and biodiversity goals in *post-Covid recovery* and in *Treasury strategy and culture*
- Engaging with public sector, local government, business and civil society on climate crisis and Net Zero implications
- Deploying soft power and ensuring UK aid and investment support global decarbonisation, biodiversity conservation and SDG goals



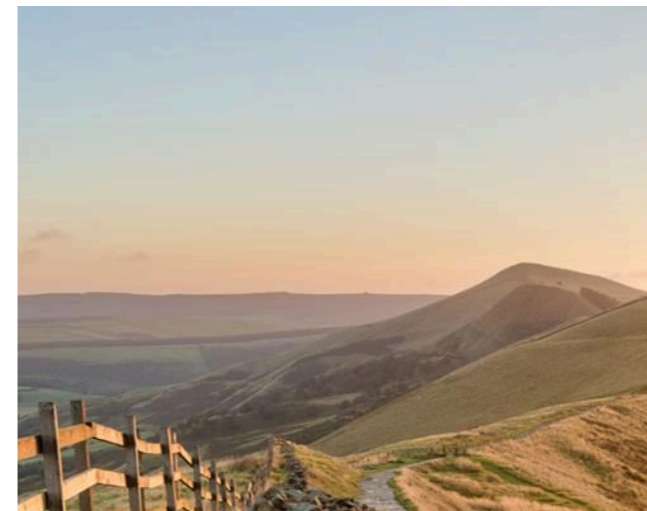
Priorities for action within the UK as global exemplar

- Setting a carbon price
- Mass electrification - transport, home energy
- Decarbonising UK's heat systems
- Home energy efficiency
- Public buildings' energy efficiency
- More renewables development
- Nature-based solutions for climate change mitigation, adaptation and biodiversity gain
- Environmentally sustainable farming and food systems
- Promoting changes in diet - less and better meat, less and better dairy



HM Government

A Green Future: Our 25 Year Plan to Improve the Environment



HM Government

Global Britain in a competitive age

The Integrated Review of Security,
Defence, Development and Foreign Policy

- Climate and nature policies in the **DAs**
 - *Wellbeing of Future Generations Act* in Wales to be emulated in rest of UK?
 - **NHS Sustainable Development Strategy** and Carbon Reduction plan
 - **Major businesses** taking a lead - eg Aldersgate Group, IKEA, Unilever
 - **SMEs**: growth potential in climate/biodiversity action eg urban greening and home energy efficiency/renewables
 - **Local Government**: crucial role as investor, employer, service provider, orchestrator of local action - eg **Surrey County Council** climate strategy
 - **Church of England**: leader in green investment, ambitious net zero goal, major landowner
- and*
- Growing **Climate Commission** movement - Leeds, Belfast, Edinburgh, Yorkshire&Humberside and more - *including Surrey*



Recommended resources: Climate Crisis, Nature Crisis, SDGs and Sustainable Development

CES, University of Surrey: www.surrey.ac.uk/ces

CES, University of Surrey and partners: Centre for the Understanding of Sustainable Prosperity (CUSP). See www.cusp.ac.uk

Tim Jackson, *Zero Carbon Sooner—The case for an early zero carbon target for the UK*, CUSP Working Paper No 18. Guildford: University of Surrey, 2019
www.cusp.ac.uk/publications

University of Surrey and partners: CECAN programme on complexity, systems thinking and policymaking. See www.cecan.ac.uk

Plus:

Aldersgate Group of UK businesses and NGOs for sustainability: <http://www.aldersgategroup.org.uk>

Cardiff University and partners: CAST, Centre for Climate and Social Transformations, www.cast.ac.uk

Sir Partha Dasgupta, *The Economics of Biodiversity: The Dasgupta Review*, HM Treasury, London, 2021

House of Commons Environmental Audit Committee, *Growing Back Better: putting nature and net zero at the heart of the economic recovery*, House of Commons, London, February 2021: <https://committees.parliament.uk/publications/4712/documents/47430/default/>

House of Commons Public Accounts Committee, *Achieving Net Zero*, House of Commons, London, March 2021: <https://committees.parliament.uk/publications/4921/documents/49419/default/>

IPBES, *Global Assessment Report on Biodiversity and Ecosystem Services*, PBES May 2019: <https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>

National Audit Office, *Achieving Net Zero*, NAO, London, Dec. 2020: <https://www.nao.org.uk/report/achieving-net-zero/>

Brian J. O’Callaghan and Em Murdock, *Are We Building Back Better? Evidence from 2020 and Pathways to Inclusive Green Recovery Spending*, Global Recovery Observatory, University of Oxford for UNEP, Oxford, 2021

Tom Sasse et al, *Net Zero: how government can meet its climate target*, Institute for Government, London, 2020: <https://www.instituteforgovernment.org.uk/publications/net-zero>

Science-Based Targets coalition of businesses: <http://sciencebasedtargets.org>

UK Committee on Climate Change, *Net Zero: The UK's contribution to stopping global warming*, UKCCC, London, 2019 <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

UN resources on the Global Goals for Sustainable Development (SDGs): UN SD Goals website, reports and resources: <https://sustainabledevelopment.un.org/sdgs>

UNDP, *Human Development Report 2020: The Next Frontier - Human Development and the Anthropocene*, UN, New York, 2021: <http://report.hdr.undp.org/index.html>

Rebecca Willis, *Too Hot to Handle: the democratic politics of climate change*, Bristol University Press, Bristol, 2020

World Business Council for SD: <http://www.wbcsd.org>

World Economic Forum, *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*, WEF, Geneva, 2020: http://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf; *The Future of Nature and Business*, WEF, Geneva, 2020: <https://www.weforum.org/reports/new-nature-economy-report-ii-the-future-of-nature-and-business>

WMO/UNEP/IPCC/MO, *United in Science 2020 Report*, WMO 2021: https://public.wmo.int/en/resources/united_in_science

WWF (2020), *Living Planet Report 2020*, WWF, Gland, Switzerland, 2020: <https://livingplanet.panda.org/en-gb/>

**Thank you for your
engagement and interest!**

i.christie@surrey.ac.uk

www.surrey.ac.uk/ces